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OPERATING AND MANAGEMENT PLANS BASED ON R.O.S. CLASS



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SHAWNEE NATIONAL FOREST

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81

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Title: Operating and Management Plan based on the Recreation Opportunity Spectrum (ROS) Activities applicable to an Eastern Forest of the United States.

Abstract: The paper develops the link from the Recreation Opportunity Spectrum concept as used in land planning to operational and maintenance procedures to be used in recreation areas, defined in terms of Recreation Opportunity Class activities. The transition from ROS to ROC is described and illustrated, using a typical Ranger District found commonly in the Eastern National Forest System. The philosophy and concept are developed along with a separate operation and maintenance guide using the ROS system adopted for field use.

Operating and Management Plan Based on Recreation Opportunity
Spectrum (ROS) Activities Applicable to an Eastern Forest of the
United States.

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CHAPTER I

INTRODUCTION AND PROBLEM STATEMENT

The Recreation Opportunity Spectrum is a definitional method of classifying types of activities that occur on public recreation lands. Applying spectrum definitions to field practices has yet to be achieved. It is possible to utilize the Recreation Opportunity Spectrum definitions of activities to write operation and management plans for field application. The significance of this approach is that it will tie the body of research knowledge to a set of plans that can be implemented by on the ground land managers.

In the succeeding paper we will discuss the current problems of land managers in applying operation and maintenance plans to facilities that may not meet public needs, the Recreation Opportunity Spectrum definitional approach to maintenance, and its application to a small field unit in the Eastern hardwood forests.

Statement of the Problems

Managing wild lands for public recreation in such a way as to meet the needs of the user by providing an array of activities is a concern to resource managers. Since the early 1950's recreation researchers and administrators have defined this use in various ways, but predominantly in terms of facilities that can be placed on the ground.

Currently the Eastern Forests manage essentially on operation and maintenance plans that define the management of an area in terms of facility maintenance on a spring-summer, fall cycle, in a developed setting. This does not consider an expanding use season which now includes late fall and winter camping opportunities; nor does it address what is to be done with those areas on which there are no facilities or which have not been developed, in other words the area in which dispersed recreation activities take place.

In some Eastern Forests, all season camping is becoming popular, with developed campground occupancy occurring year-round. Currently the operation and maintenance plans that have been written address the seasonal aspect of facility maintenance rather than addressing the activity on the ground on an all season operation basis.

Delimitations

In order to confine the parameters of this year-round operational plan to a size that is manageable and meaningful to field personnel, this paper has dealt with a Ranger District size unit located on an Eastern Regional National Forest. The Murphysboro Ranger District of the Shawnee National Forest has been the subject of several Recreational Opportunity Spectrum studies¹ and presents an ideal size unit with the normal year-round recreation opportunities available to the National Forest visitor. The District covers 274 square miles, has 6 developed sites with 74 units of various sizes. The District has operated under the multiple use management principle with a fairly evenly divided work

load of timber and watershed, (providing water for the City of Carbondale, Illinois), of wildlife which includes the Greentree Reservoir project, and of land uses and minerals activities.² An important part of the District's operations has been the management of the dispersed recreation opportunities particularly in the late fall and winter.

LOCATION OF STUDY AREA IN ILLINOIS

SHAWNEE N. F.
(National Forest)

North

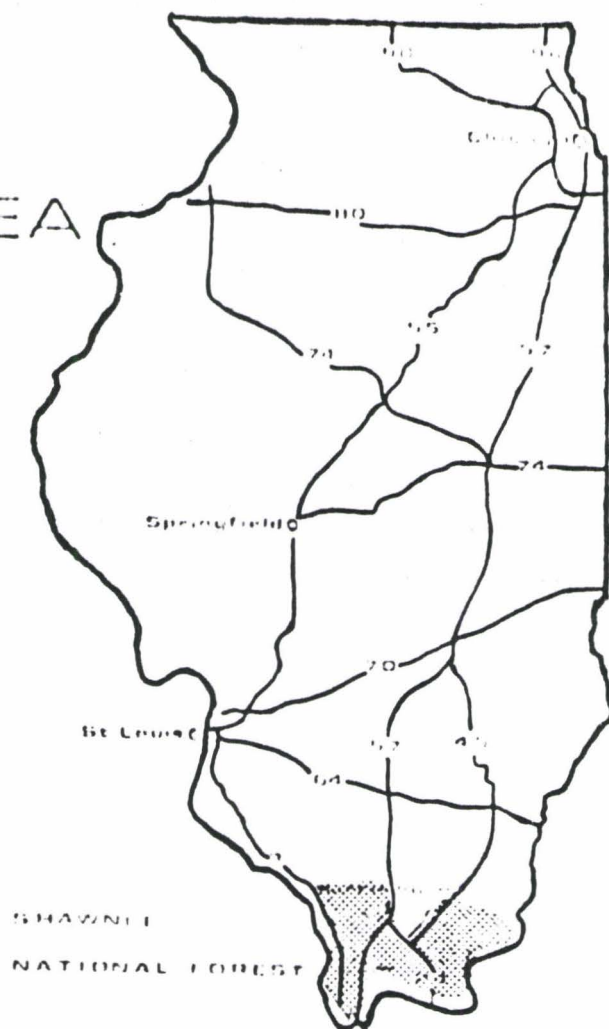


Figure 1. Shawnee National Forest in Illinois

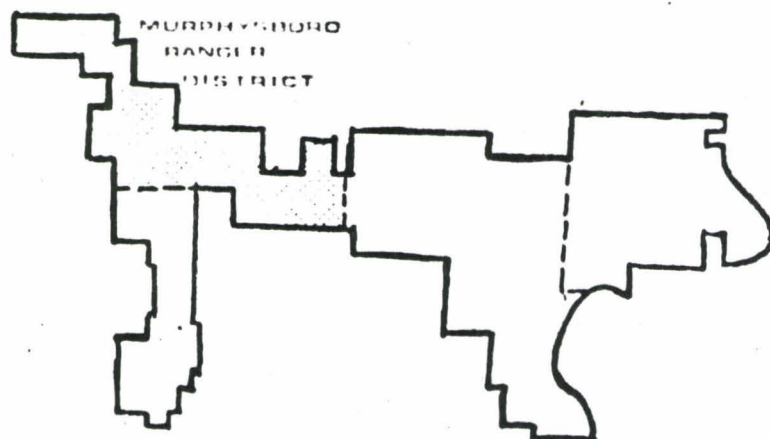


Figure 2. Murphysboro Ranger District in Shawnee N. F.

SCALE
0 1 2 3 4 5 6 Miles









MURPHYSBORO

RANGER DISTRICT

1981

North

LEGEND

-  District Ranger Station
-  Forest Boundary
-  Forest Land
-  State Park
-  Main Highway
-  City & Town
-  Lake
-  River & Creek

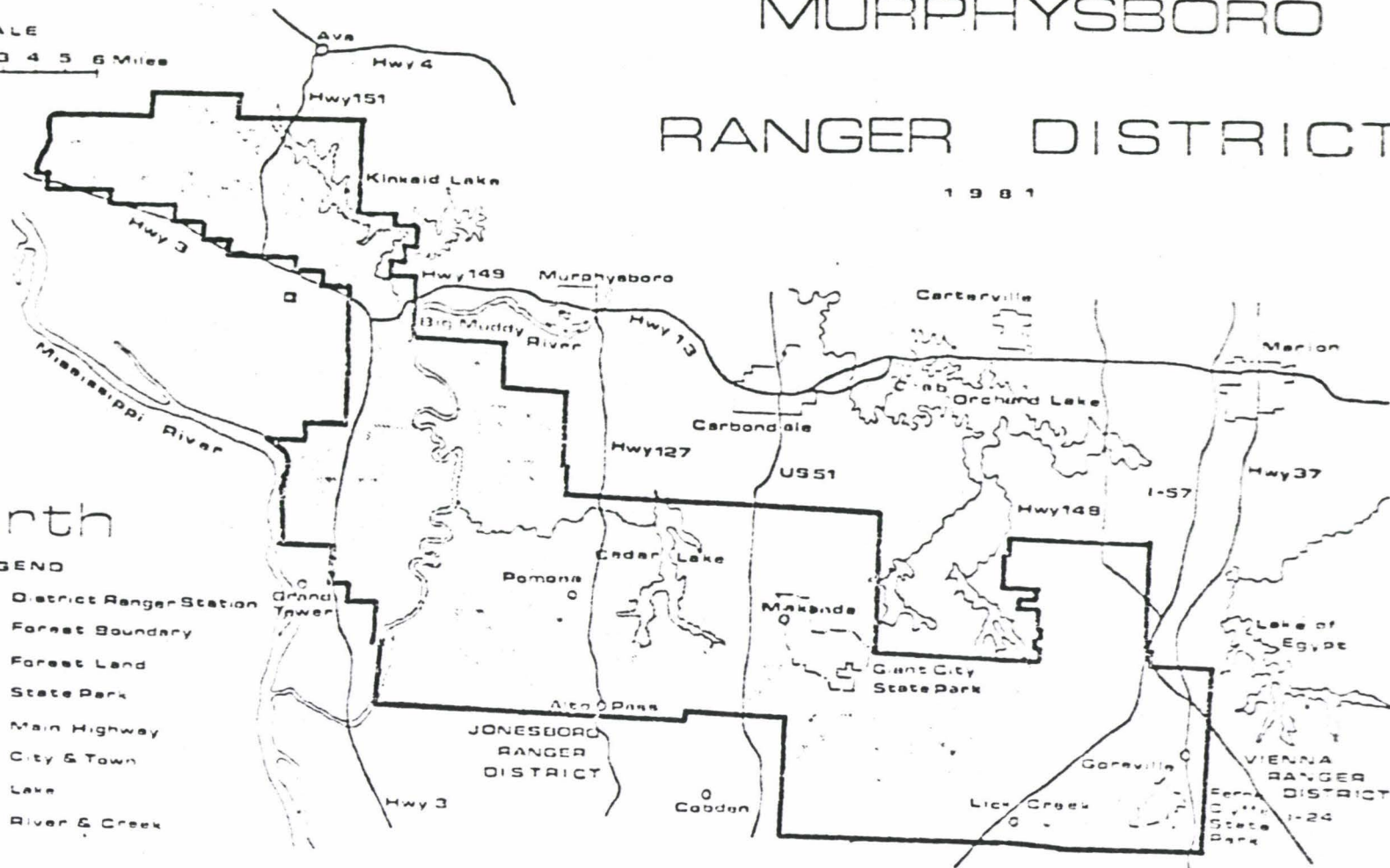


Figure 3. Murphysboro Ranger District, Shawnee National Forest, Illinois

Definitions

The abbreviation ROS will appear throughout this paper. Recreation Opportunity Spectrum was a phrase developed by Clark and Stankey (79) to describe an array of activities taking place in certain types of forest settings. This paper was based on earlier work concerning the notions of a spectrum of activities by Brown, Driver and McConnel (78) and early recreation activity studies based on land capacities by Wagar (74).

Recreation Opportunity Class, abbreviated ROC is the subdivision of ROS into activity subgroups. An example would be semiprimitive non-motorized (APNM), used to describe these activities that will occur in a non-roaded setting.

The notion of Carrying Capacity, which defines the capability of any piece of ground to support various activities was expanded upon in work done by Wagar (72), (74) and has been carried into the definition of ROS. These definitions describe intensities of land use tied to capacity and expressed in working standards through ROC.

Other terms that are familiar to outdoor land managers are Persons at One Time, often abbreviated as (PAOT). This is the number of visitors that could occupy a certain area, such as a camping unit, for a certain length of time, usually a 12 hour period, depending on their activity. Facilities are designed to handle a certain number of visitors engaged in a specific activity at one time for a specific duration.

By observing on a random basis these activities we can determine how long people participate in the activity and assign a standard duration. This duration period is usually measured in hours. We can assign maintenance intensities based on this duration. The more concentrated the use, the greater the amount of cleanup and maintenance that will be needed. Areas also have a theoretical PAOT figure which can be equated to design (carrying) capacity.

Another commonly thought of term that has been dealt with in establishing visitor activities is Recreation Visitor Days. A visitor day or (VD) is one person performing an activity for a certain length of time. By adding the **number of visitors** at varying lengths of stays together, we arrive at visitor day intensities. An example would be a sports-person fishing at a lake for a 3 hour period would be considered .25 of a visitor day.

Two other definitions that need to be considered in our discussion are those of dispersed and developed recreation. Arising out of an early review of the nature of recreation activities that occur on the land described by Wagar (74), is dispersed recreation, or **activity that** takes place in the absence of facilities or amenities, such as hiking, backpack camping, roaded recreation and off-road vehicle use, sight-seeing, canoeing, and a variety of similar uses.

This is in contrast to developed type recreation which is dependent on or associated with facilities that support the activity such as swimming sites, campgrounds, observation platforms, paved walking paths

and interpretive facilities.

It is proper to discuss these in content with the Recreation Opportunity Spectrum (ROS) as the spectrum defines an array of activities from primitive to highly developed. The ROS moves away from pure definitional lines of developed and dispersed. It has been difficult in the past to define activities, as the definitions did not allow for the marginal sites that combined activities taking place in the dispersed segment, which were dependent on facilities within the developed segment. Such as a trail head parking facility with a permanent vault toilet, or a concrete boat launch parking and rest facility at the end of a dirt road. (The launch was put in for low cost maintenance and permanency; the rest facility for public need, and the low standard of road because of maintenance dollars and seasonal nature of use.)

Visits, as differentiated from visitor days describes an activity taking place in time, which is less than a 12 hour period. Usually visits consist of an exposure of the participant to an activity in terms of minutes or hours. The figure is used to denote activity impact to an area, and associated with facilities or facility carrying capacity at any moment in time. A high number of visits to an area may lead to the need to perform the maintenance job more frequently, taking more time and at a larger cost.

Basic Assumption

Through recreation research and applied practice, the concept of recreation use has been established. Wagar in his work (66) (72) (74) theorized that as long as we have forests and open spaces, people will use these areas for recreation activities. He went on to postulate that the land could support a certain level of activity or carrying capacity and that beyond this point depreciation of the resource would occur faster than recovery. In other words the land would wear out faster than it would recover. These activities occurred in various settings from primitive to highly developed sites. Commonly we have defined the activities of individuals in terms of facilities such as camping in campgrounds, hiking on trails, boat use in terms of ramps and docks. This led to the writing of operation and maintenance plans in terms of facilities thus tying the land to facilities rather than to the activity. The operation and maintenance plan for an area, for example, calls for so many restrooms to be painted, picnic tables to be cleaned, and barrier posts to be treated.

Driver and Brown (78) supported Wagar's supposition of carrying capacity but defined the activity in terms of a spectrum or array of activities occurring on the land. This notion has been described also by Clark and Stankey (79) in their study which was done in conjunction with Driver and Brown's earlier work.

This established the term Recreation Opportunity Spectrum (ROS) as an accepted term to describe a situation of resource capability and human activity.

Limitations

The Recreation Opportunity Spectrum concept was proposed by Clark and Stankey in 1979. Since that time the system has been refined and expanded upon to fit management situations³ by areas and by regions. This paper deals with one specific field unit (Ranger District) and applies the concept specifically to one District. For this reason, the approach for other field units will be similar with references and figures but unique in terms of durations and cost discussed. A program of Regional or National scope could be developed but is not entertained in this paper.

This study also confines the notion of ROS operations and maintenance aspects of a specific field unit, and does not deal with the larger issue of management direction or planning as a subject.

A final note to limitations, the study is dealing in an area that is currently being reviewed and developed at higher levels of the Forest Service organization.

It is possible that direction for ROS application on a National Level will arrive concurrently with the results of this study.

Significance

The ROS is a system of National scope which has applicability to agencies and corporations involved in land management on a large scale.

FOS has been used in the development of land use plans at all levels of the Forest Service organization. Similarly, the problem of defining management of facilities in operations and maintenance plans that are responsive to ground conditions and reflect the current terminology of land use (developed and dispersed recreation) has been faced at all levels of the organization. By defining activities on-the-ground in the context of the Recreation Opportunity Spectrum and carrying these definitions out to operations and maintenance plans that are useable to field managers provides a link between planners, managers and field supervisors. These plans can be supplied at the field level for District use at the same time utilized at the management level for determining plans and costs for future years operations.

The study is timely as it provides a link between past practices (planning for facilities) and current planning (concept of FOS), permitting management to translate new concepts (ROC applied to maintenance) to field application. This is important as it gives the manager a chance to shed old terminology, adopt new concepts and adjust on the ground working plans to the planning process. It also will provide guidance and help to field supervisors in explaining to field crews, new ways of thinking about our job and how we go about doing our job. The key is looking at what we are doing day to day and saying, is this cost effective? Should I still be doing this job or is there a more intensively used area on which I should be spending my time? Perhaps there is a new activity in the area I maintain, that I do not have time to do anything about, such as the introduction of horseback riding. Should I shift my maintenance activity from little used (low impact)

areas to this new activity area, and is my maintenance crew trained and equipped to work with this new activity area? I also need to know into which ROS class the activity I am maintaining falls, for the higher the class, the greater the impact and use, and the more maintenance I will need to perform.

This plan explains the cross-walk between the Recreation Opportunity Spectrum and the Recreation Opportunity classes and spells out in a sample maintenance plan how the activities that occur in the forest can affect the type of maintenance that is performed.

1. Kenneth C. Chilman and Jem-Yen-Pin Kao (M.S. unpublished dissertation, Southern Illinois University, Carbondale, 1981), p. 4.
2. Ibid.
3. ROS, a guide (USFS miscellaneous publication, Washington, D.C. 1981) and, ROS Primer (unpublished manuscript, USFS, R-9, Milwaukee, 1981)

CHAPTER II

LITERATURE REVIEW

The Recreation Opportunity Spectrum has been in the development stage since 1964.¹ One of the needs arising out of this research is the development from a theoretical base to practical application.² Many of the eastern forests continue to operate developed recreation sites on the basis of facilities³, tying the management options to a limited framework. Utilizing the Recreation Opportunity Spectrum classes to describe activities, we can expand the horizon of options and relate resource availability to user demand and preference. We can describe these options through operation and management plans for developed sites and dispersed areas.

Indeed, in 1972, Wagar wrote in the Journal of Forestry concerning recreational capacity, "Emphasis on carrying capacity may focus so much attention on physical site facilities that equally important factors are overlooked especially these concerning a balanced system of recreation opportunities". Wagar goes on to suggest that "people do not always honor each others' desires for diverse opportunities or the intent for which diverse areas were established. For example, people who do not mind crowding are quite willing to use areas where others are seeking solitude. And, people who do not mind noise are quite willing to sing or shout or run their motor bikes within ear shot of people who hate noise."

"To prevent all opportunities from being reduced to the lowest common denominator and to prevent rare and unique opportunities from being converted to conditions that are already abundant, the obvious solution is to create an integrated and highly visible system of areas and zones. Such a system, by providing alternatives for visitors who might invade some zones with conflicting use, can protect diversity and opportunities for diverse desires". These conclusions were noted in Trends in Parks and Recreation Magazine in 1966. Nearly every site however, could be used in a number of ways ranging in intensity from wilderness to high rise condominiums. Therefore, a basis for decisions is essential.⁴

Brown, Driver and McConnel (78), pointed out in subsequent studies that, "the most important responsibility wild land managers have, are: (1) to provide recreation opportunities which are demanded and appropriate for the area being managed; (2) to prevent unacceptable damage to the resources; and (3) to protect users from serious harm". In a paper prepared discussing the spectrum, and behavior information the authors explain that only information on **behavioral-defined-user-preference** is needed in outdoor recreation resources supply inventories. They go on to show how such information can be used within the context of the Recreation Opportunity Spectrum concept. The paper describes five types of information needed for balanced outdoor recreation planning and management. Using the system, land areas can be inventoried in terms of their capability of providing both activity and experience opportunity.⁵

Interestingly, Driver and Brown in 1978 describe a situation where a good size body of information has been developed about the need for a land classification system that relates to activity on the ground. Since the early 1960's, researchers have been making studies that would produce an appropriate system. "One of the reasons this information is not getting applied more widely is that, during the past ten years, the state of relevant social and behavioral science knowledge has gone beyond the expertise available to implement it".⁶

This paper ties one facet of this knowledge gap, by relating the ROS to field application. However, as pointed out in the Brown and Driver paper, "a problem associated with the attempt to provide a variety of recreation opportunities has resulted from reliance on the activity definition of opportunity. That approach has tended to nurture the idea that managers should attempt to provide as many activity opportunities on a given area as possible, rather than attempt to provide those experience opportunities which are most appropriate for the area...".⁷

For this reason, the concept of Recreation Opportunity Spectrum, which incorporates both the idea of activity and experience opportunity, is becoming more widely accepted (Wagar 66, Fischer 72, and Stankey 77).

Driver and Brown (1979) in their dissertation stated, "a Recreation Opportunity Spectrum is based on the idea that there is a continuum of opportunities that range from one anchor or polar point on the Spectrum to another...". The authors proposed that managers cannot and should not

attempt to provide every type of experience opportunity on every area but instead to gear management toward the provision of those demanded experience opportunities which are most appropriate for particular resource settings. This can be done by using the Opportunity Spectrum concept to (1) inventory outdoor recreation resources in terms of their interest potential to provide both activity and experience opportunities; and (2) set management objectives that specify what type of activity and experience opportunities will be provided at a particular location.⁸

In a later paper produced by Clark and Stankey in 1979, titled The Recreation Opportunity Spectrum, the authors focused in on those problems identified by Driver and addressed the setting in which recreation occurs. As Clark and Stankey pointed out, "Driver and Brown proposed a hierarchical framework that specifies four distinct levels of recreational demands: (1) for activities; (2) for certain situational attributes (settings); (3) for specific psychological outcomes, experiences, and satisfactions; and (4) for benefits. We concur with the authors that some demands do not exist in and of themselves but for the satisfaction and benefits derived at other levels of demand". Clark and Stankey go on to diagram how these demands relate one to another. Within this context, they show the relationship of managers to the development and maintenance of certain types of experience.⁹

Through considerable discussion, Clark and Stankey in their paper on ROS, highlight the settings for opportunity; discuss access; on site management, including extent of site modification; appropriateness of

site modification; complexity of site modification and facility development. They describe the social setting for various activity occurrences, regimentation, and enforcement that is appropriate and needed and discuss the problems of coordinating or orchestrating these factors at various levels of the Recreation Opportunity Spectrum. They define each of six Recreation Opportunity Spectrum categories and how the various elements described relate to the Recreation Opportunity Spectrum categories from primitive to urban. Managing inconsistency is one area dealt with as is the consequences of management actions in terms of the Spectrum.

Matching desired experiences with available opportunities, Clark and Stankey point out that there is no simple link between experiences sought, recreational activities, and opportunity settings. However, the purpose of the Recreation Opportunity Spectrum is to allow the manager to view an array of alternate management schemes to fit as closely as possible desires with resource opportunities and to coordinate site modification activities to these desires and experience expectations. "Managers can predict seasonal changes at specific locations to provide diverse opportunities for recreationists. For example, many campgrounds have been developed to provide modern experiences during the summer season or peak use...". These campgrounds are often in spectacular locations that have year-round appeal. Frequently, however, they are closed from August to June. Such closures concentrate use into a relatively short season and eliminate the potential for off season (or extended season) use. Natural processes can alter the opportunities available even in open areas. Snowfall may preclude access by con-

ventional, wheeled vehicles, thereby converting a modern opportunity to a more primitive one for part of the year. Such changes, whether by management or natural processes, affect one or more of the opportunities available. Utilizing these seasonal changes, management can provide variety at individual sites, thereby extending use throughout the year, gaining greater use of expensive recreational developments and broadening the range of options from which visitors can choose.¹⁰

This body of research has been developed into a publication developed by the USDA Forest Service in 1981 titled ROS Users Guide. In this publication, (authors unnoted) the concept of ROS is further defined for planning purposes. The publication is directed toward the planning sector with specific notes that further work is needed to apply the system to field application.

Discussing this problem in an interview with Dr. Ken Chilman, Associate Professor of Forestry at Southern Illinois University at Carbondale, Chilman related his collaborated research with ROS as reported in a paper titled Lake Tahoe Basin Management Unit, Forest Service USDAM 1980. This paper further set the stage for application of ROS principles at the Ranger District level.

In an additional study, the Tahoe research work was repeated by Chilman and Jem Yen Pin Kao in 1981 on a Forest Service Ranger District in Southern Illinois.¹¹ This sets the stage for the premise of this work, that of field guides for unit managers in ROS application.

1. J. Alan Wagar "The Carrying Capacity of Wild Lands for Recreation" Forest Science Monogram 7 1964, p. 24.
2. Roger N. Clark and George H. Stankey "The Recreational Opportunity Spectrum" (General Technical Report PNW-98. Pacific Northwest Forest and Range Experiment Station, Seattle, 1979), p. 17
3. USFS Manual R-9 Supplement 45, 2/78. 2331..1 Standard procedure for development of operations and maintenance plans.
4. J. Alan Wagar "Recreation Carrying Capacity Revisited" Journal of Forestry 72 (5) 1974, p. 276.
5. Perry J. Brown, Bev L. Driver and Charles McConnel "The Opportunity Spectrum Concept and Behavioral Information in Outdoor Recreation Resource Supply Inventories": Background and application (USDA Forest Service, Rocky Mountain Forest and Range Experiment Station, General Technical Report RM-55, 1978), pp. 73-84.
6. Bev L. Driver and Perry J. Brown, The Opportunity Spectrum Concept and Behavioral Information in Outdoor Recreation Resource Supply Inventories: A Rationale (USDA Forest Service, Rocky Mountain Forest and Range Experiment Station, General Technical Report RM 55 1978) pp. 73-84.
7. Ibid., p. 27, 8. Ibid., p. 28 9. Clark and Stankey, Spectrum, p. 6
10. Ibid., p. 18 11. Chilman nd Kao, Dissertation, p. 4

CHAPTER III

PROCEDURES

Introduction

Currently Eastern Forests manage recreation areas with operation and maintenance plans designed in terms of facilities on-the-ground under a two season concept. Utilizing the Recreation Opportunity Spectrum, we can develop an operations and maintenance guide, responsive to activities on the land, thus, getting away from facilities and at the same time define the plan in terms of all season uses.

Naturally, there are lesser and more expensive ways of doing business. The RIM statistical data system used by the U.S. Forest Service provides an excellent management tool in which to evaluate least cost approaches. This study, for the sake of confining discussion is limited to one Ranger District on the Shawnee National Forest.

Instrumentation

The main thrust of this report is to review existing plans and create a cross-walk from operational plans in terms of facilities to O&M plans in terms of all season activities.

Collection

In order to arrive at some logical sequence of events, through a

literary study past plans and guides were reviewed and rewritten utilizing the spectrum as a guide.

Material collected came from current sources now available and from recently published definitions of the ROS.¹

Treatment

Once collected and reviewed, the old plans were redrafted and expanded upon to (1) incorporate the all seasonal aspects and (2) to provide a cross-walk from ROS to Recreation Opportunity classes in terms of activities, intensities of use and, levels of development.

These projections are outlined in the next section. Reference data were extracted from the RIM inventories, available through the WO of the U.S. Forest Service and commonly found at all levels of the organization.

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1. ROS Users Guide, (USDA Forest Service, Washington, D.C. 1981), and Operation and Maintenance Guides, (Murphysboro Ranger District, Shawnee National Forest, Murphysboro, IL 1981).

CHAPTER IV

ANALYSIS OF DATA

Currently, the Eastern Forests manage recreation areas with operations and maintenance plans that define the care of an area in terms of facility maintenance on a spring-summer-fall cycle. This does not consider an expanded recreation use season which now includes late fall and winter recreating opportunities; nor does it address what is to be done with dispersed areas, on which there are no facilities or which have not been developed. It similarly defines the use management in terms of facilities as opposed to activities occurring on the resource. Within this section, utilizing a review and recasting of existing plans and specifications that have been historically based on recreation management concepts (Wagar 66, 72; Clark and Stankey, '9) is a cross-walk from facility based plans to activity based plans utilizing the ROS definitions expressed in terms of as defined in Recreation Opportunity classes.

Arising out of this study were the notions that (1) there was a correlation between the ROS system and on the ground operations and maintenance plans and (2) to this point in time a direct association between the planners use of ROS and the field manager's need for a guide to apply the ROS system to field maintenance procedures had not been developed or outlined.

Identification and Application

To delineate the study, the Murphysboro Ranger District, Shawnee National Forest was selected to describe the project.

Previous work¹ developed the ROS classification for the Murphysboro Ranger District and this was further defined into activities by areas.

Zdzieblowski (81) prepared a report on ROS land classification of the Shawnee National Forest in conjunction with land management planning efforts on Forest. That report enabled a delineation of the ROS classes in the Murphysboro Ranger District, abbreviated (MRD).²

ROS Land Classes

In accordance with instructions in FSH 1909.12 dated 11/80, four ROS classes were found within the MRD boundary. They are Urban (U), Rural (R), Roaded-Natural (RN) and Semi-Primitive Motorized (SPM) (Figure 4). These Recreation Opportunity Classes (ROC), except Urban, had been mapped for National Forest land only.³ Within the forest protection boundaries, approximately two thirds of the area, mostly privately owned, is the rural class (R). The rest, includes class roaded natural (RN), urban (U) and semi-primitive-motorized (SPM). A definition of these classes as they relate to the specific field unit follows:

Primitive (P)

There is no area which is 3 miles from any kind of road or trails with motorized use, so there is no class (P) in MRD.

Semi-Primitive-Non-Motorized (SPNM)

All areas between 1/2 mile and 3 miles from all roads, railroads, or trails with motorized use do not have enough size (2,500 acres) for SPN size criteria. They are therefore included in class SPM. That is also one of the reasons why some SPM areas exceed more than 2,500 acres.

Semi-Primitive Motorized (SPM)

Three SPM areas were identified. One is a continuous area of approximately 2,900 acres in MRD. The second has 2,000 acres, and the third contains 280 acres on the MRD and the balance on an adjacent unit. The second area with 2,000 acres does not meet the SPM size criteria (FSH 1909.12. 11/80) however, it has been classified as SPM because it has more characteristics of SPM class, than RN class.

Foaded Natural (RN)

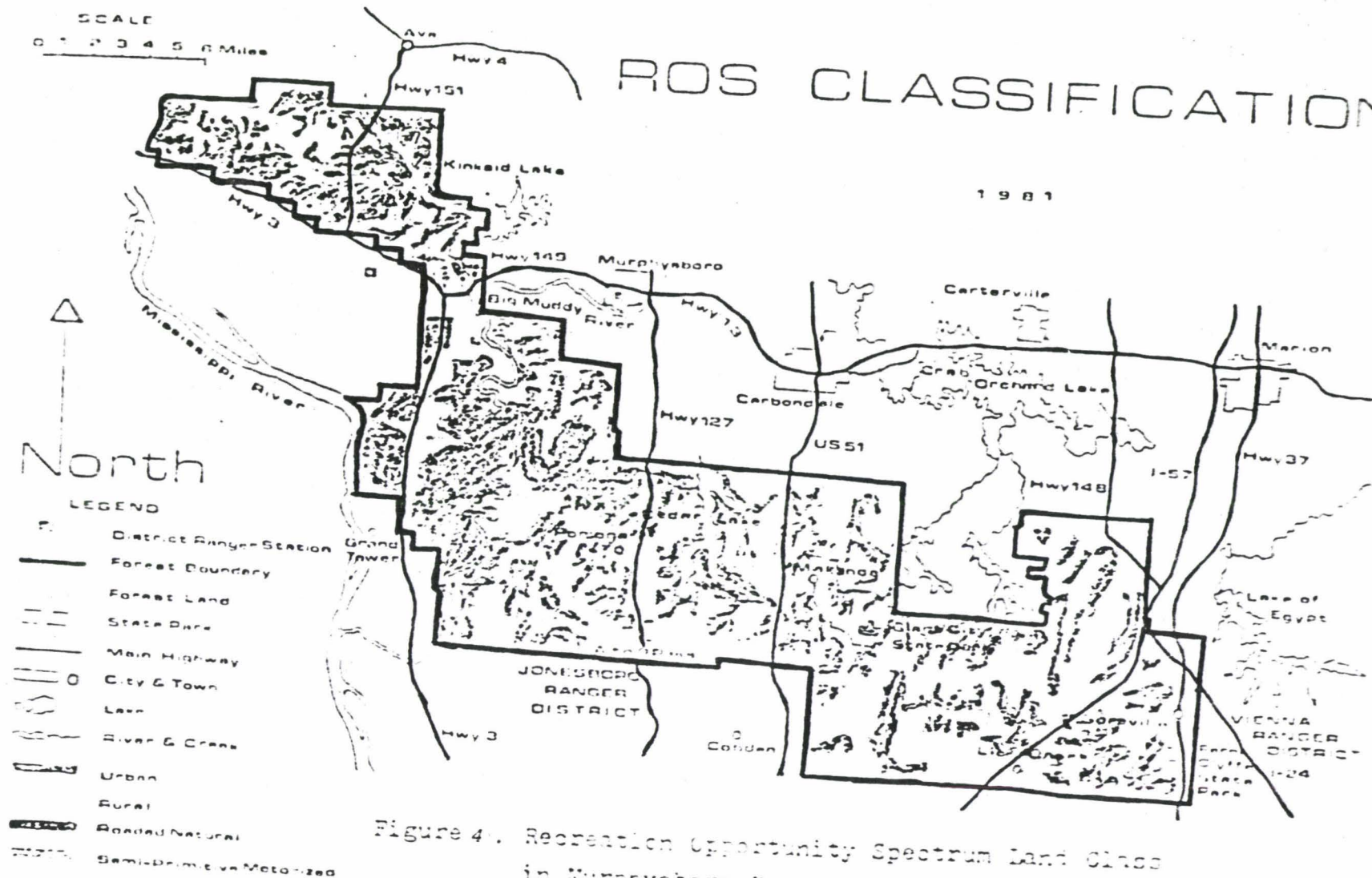
The largest amount of National Forest is in the RN class. Natural appearing environments are the predominant characteristics

of these areas. Since only four classes of the ROS have been identified on National Forest land in the Murphysboro Ranger District (Figure 4) the recreation activities in Table 1 (from FSH 1909.12, 11/80) can be expected to occur in these areas.

Durham and Yost, developed a graphic scheme which is portrayed here, to demonstrate the types of activities that occur under different ROS categories. They also visualized the overlapping effect of one activity to another. This overlap at times causes conflict situations. Examples would be zoning recreational activities; seasonal use limitations on areas; separation of types of activities by introducing buffer areas and requiring a permit system.

ROS CLASSIFICATION

1981



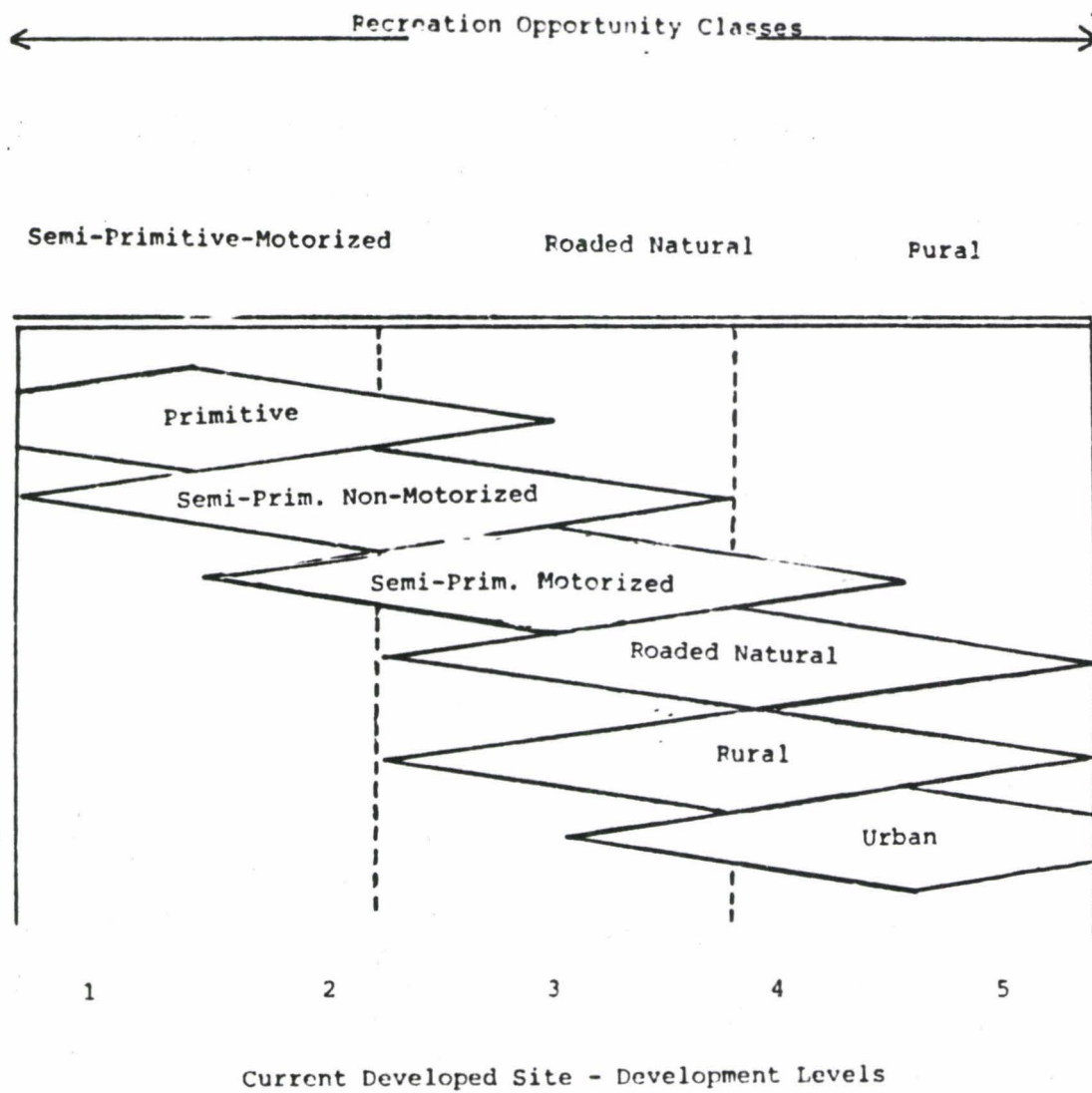
Recreation activities are displayed along the left hand side and are divided into the Recreation Opportunity classes on the right side. These activities are typical for the study area. For the development of localized maintenance plans it is desirable to determine the types of activities by classes. The cycle of maintenance can be designed around these activities and appropriate costs entered into unit management plans.

Table 1
Recreation Activities Expected by ROS Class

RECREATION ACTIVITIES	CLASS		
	SPI	KN	R
VIEWING SCENERY			
HIKING			
CROSS-COUNTRY SKI TOURING AND SHOWSHOEING			
HORSEBACK RIDING			
CANOEING			
SAILING			
OTHER NONMOTORIZED WATERCRAFT USE			
SWIMMING			
DIVING (SKIN OR SCUBA)			
FISHING			
PHOTOGRAPHY			
CAMPING (TENT, GENERAL DAY)			
SNOWPLAY			
HUNTING (BIG, SMALL GAME; UPLAND BIRD AND WATERFOWL)			
NATURE STUDY			
UNGUIDED WALKING			
GENERAL INFORMATION			
MOTOR-DRIVEN ICE AND SNOWCRAFT			
JOVY TOURING			
POWER BOATING			
.....			
PICNICKING			
GATHERING FOREST PRODUCTS			
DOWNHILL SKIING			
WATER SKIING AND OTHER WATER SPORTS			
VIEWING INTERPRETATION SIGNS			
RESORT AND COMMERCIAL PUBLIC SERVICE			
RESORT LODGING			
.....			
COMPETITION GAMES			
ICE SKATING			
BICYCLING			

Supporting work (by Durham and Yost) visualizes the activity delineation in Table 1. In their study they portrayed the activities and supporting facilities against the ROS classes abbreviated as (ROC). Recalling the definitions, ROC is a subdivision of the Spectrum (ROS). It separates intensities and types of use an area receives. The ROC definitions will replace developed experience level descriptions currently used to describe the amount of facilities found at a developed recreation site on National Forest lands.

By making the transition in terminology we can fully utilize the spectrum concept. It will aid the field supervisor in making an association between what planners are doing and what field workers are doing. In Figure 5 the currently used recreation facility development levels 2, 3, and 4 are highlighted as those most characteristic of the study area. The overlapping nature of the spectrum and the development level is shown on either side to provide the total spectrum and to account for the occasional development which will occur on either side of the defined levels.

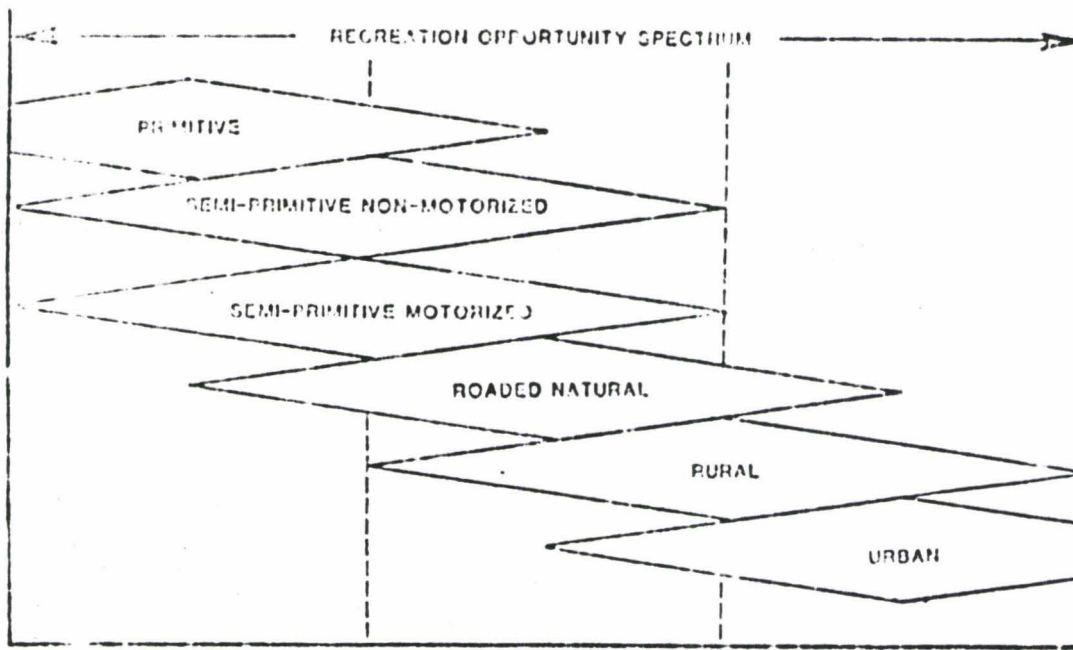
RECREATION OPPORTUNITY SPECTRUM

Activities that have been identified for the MRD (2) are highlighted in Figures 6 and 7. Additional activities are described for future management consideration but are not now carried on within the MRD.

So far we have defined the ROS and displayed the spectrum to see how overlap areas do occur and why conflicts between user groups engaged into classes of activities arise as they compete for space. We have subdivided the ROS into classes of activities which represent intensities of land use. We have talked about the effects of increasing intensities, on land capability (carrying capacity) and on maintenance levels. As the use an area receives becomes greater, the cycle and duration of the maintenance activity increases. This can be expressed in terms of numbers of hours needed or in cost of operation that management considers in making plans and laying out long range work programs. Taking the next step we tie individual activities that the public engages in within the Forest setting to the ROS to see how we would describe the activities under different intensities of management. We can also look at how we would manage these activities under different levels of intensities. Thus, the individual activities can be displayed on a scale as shown in Figures 8-13.

Camping

Camping conditions eventually found in managed areas as defined by Recreation Opportunity Class.



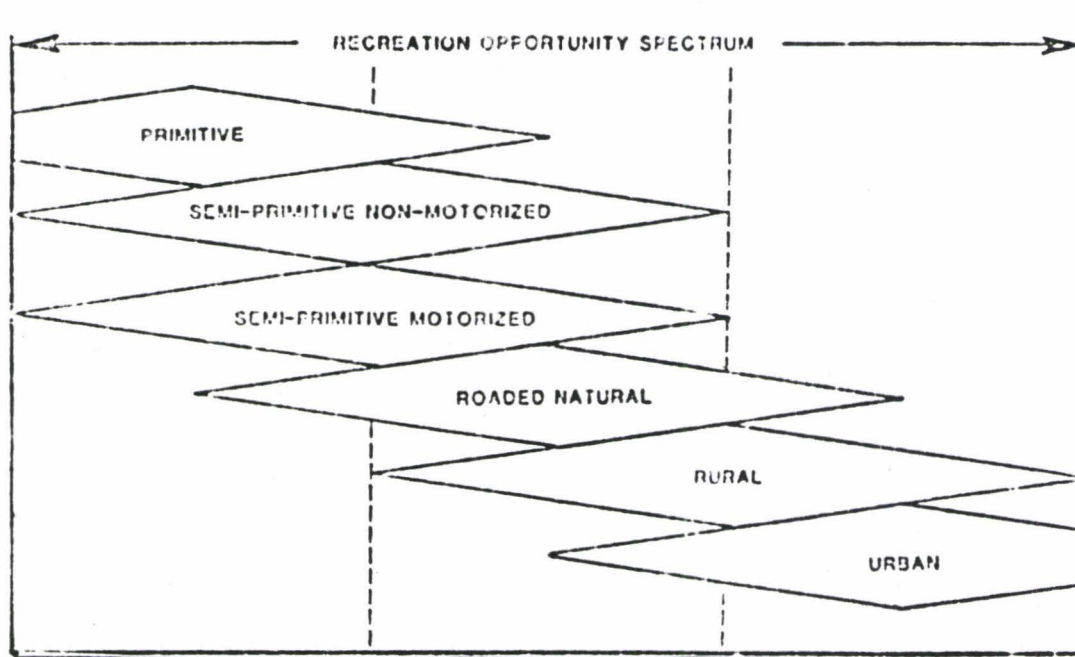
Social orientation, with camp units numbering 50 to several hundred. Spacing between units varies, yet is small to encourage socializing between campers. Flush toilets, sewer and electric hookups, laundry facilities, grocery store, and entertainment centers are present.

Environmental oriented campground, simple facilities, vault toilets with or without developed water supply. Individual camp units are widely spaced; units often number less than 10 and never more than 50. Vegetative screen maintains privacy and natural atmosphere.

Environmental-social oriented campground, moderately developed facilities, paved roads, and flush toilets. Hiking trails and bicycle trails nearby. Often with open play areas or playgrounds. Full service maintenance during normal use season. May operate on reduced service out season.

Activity

Picnicking and swimming conditions usually found in managed areas as defined by Recreation Opportunity Classes.



Environmental oriented area with undeveloped swimming, a few widely spaced picnic units, and vault toilets. Maintenance levels moderate, semi-annual cycle of maintenance.

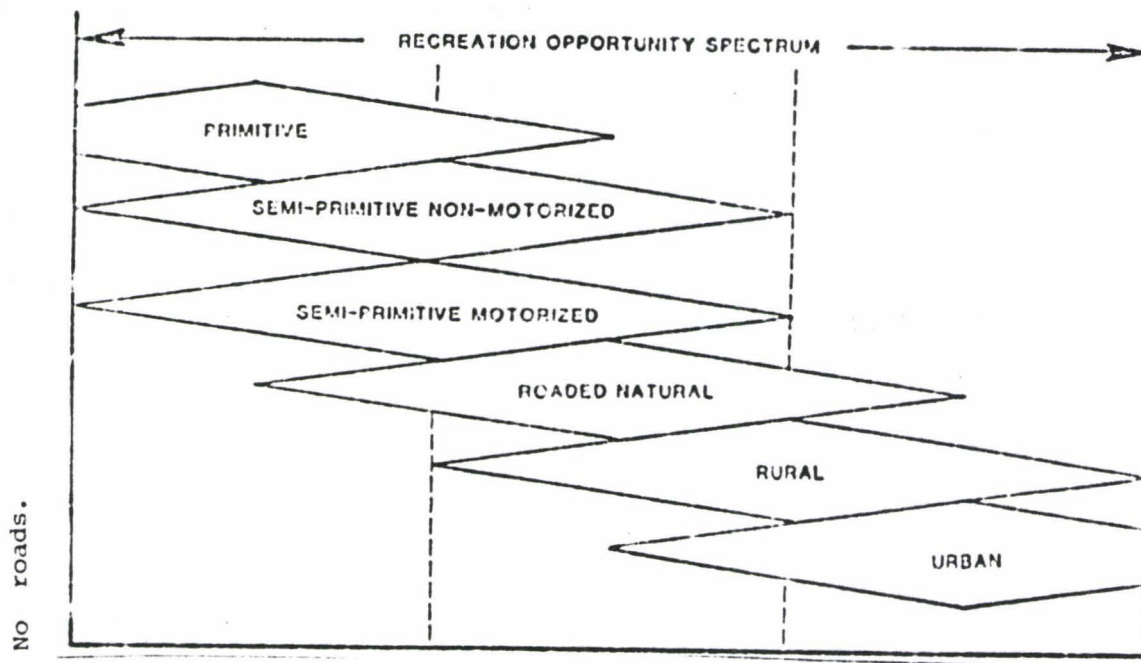
Environmental-social oriented setting, developed beach and marked swimming area, change rooms, and limited food services. Usually more than 20 picnic units with shelters and facilities for large groups; open space and playground area. Full schedule of annual maintenance duties. Some contract work considered.

Social oriented environment, highly developed sites with constructed play areas, beaches, swimming pool, court game area with picnic units and shelters for groups numbering several hundred people. Full level of weekly servicing.

Temporary occupancy, "no facilities or site improvements." Maintenance level low, pack it out cleanup programs in place.

Activity

Driving for pleasure, motorized viewing. Road conditions usually found in managed areas as defined by Recreation Opportunity Class (ROC).



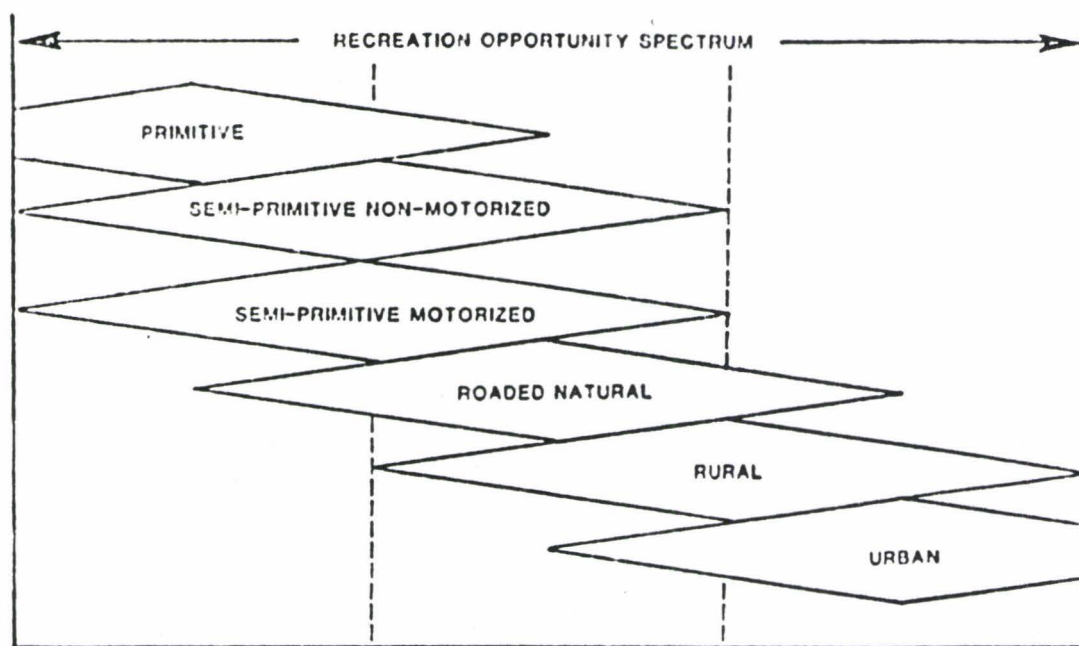
All road classes arterial, collector, and local. Road density is heavy to very heavy, normally over 10 miles of road per square mile. Design, surfacing, and maintenance accommodate vehicles designed for highway use.

Low density of unpaved local roads predominates with an occasional segment of collector road. Roads may be closed except for administrative use. Design, maintenance, and surfacing accommodate vehicles designed for unpaved road use only.

Arterial, collector, and local roads with density from 3 to 12 more miles per square mile. Design, surfacing, and maintenance accommodate vehicles designed for surfaced road use.

Boating

Boat launch conditions normally found in managed areas as defined by Recreation Opportunity Class.



Over land portages with no developments other than trails.

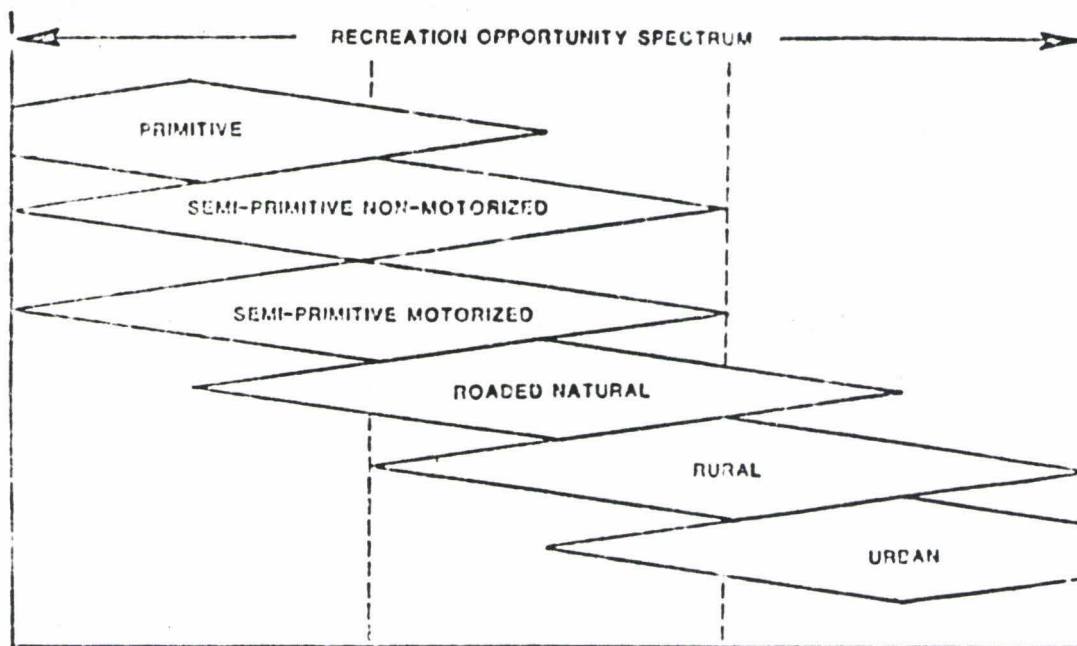
Earth or gravel launch, ranging from no vehicle access to parking for less than 15 vehicles. May have vault toilets. Annual cleanup and repair of facilities.

Concrete launch with parking for 50-100 vehicles, flush toilets, a sanitary boat dumping station, temporary docking, and moorage. Routine maintenance to facilities.

Large boat marina with equipment to launch large yachts, temporary and permanent moorage, club house, and boat sales and services. Maintenance servicing on a daily basis.

Activity: Hiking, Backpacking

Trail conditions usually found in managed areas defined by Recreation Opportunity Class (ROC). As we move from low use (primitive) to greater intensity of use (urban) the capacity design changes and the need for more maintenance increases.



Trails are constructed to meet the separate needs of motorized and non-motorized users. Minimum signing locates visitors safely. Designed for use by foot, horse, ski or motorized craft. Maintenance occurs annually.

Trails are designed for visitor safety and comfort and to protect adjacent resources. Signing for safety, interpretation, and convenience. Trails designed for multi-uses and comfortable outdoor experience. Trails are brushed or mowed, signs replaced and tread work done throughout the recreation season.

Trails hardened to accommodate heavy use. Signing for safety, direction, and interpretation is prominent. Facilities and services promote comfort, convenience, and socialization. Maintenance occurs regularly to insure public safety and convenience.

No motorized trails; some paths may become established through frequent use. No signing. Minimal annual cleanup.

Activities Found on The Murphysboro Ranger District
and Associated Facilities by Recreation Opportunity Class

Grouping the activities together for developed and dispersed areas on the study area, we assign each activity a number. Displayed in this chart also, is the season of use which is the duration of use and the designed capacity for that activity (PAOT). The current development level is shown in the right hand column.

A. Developed Sites (ROC Roaded Natural)

		<u>Season of Use</u>	<u>P.A.O.T.</u>	<u>Development Level</u>
I. <u>Camping</u>				
1.	Johnson Creek - Family	220	215	3
2.	Johnson Creek - Group	220	320	4
3.	Johnson Creek Hike-In	220	60	3
4.	Turkey Bayou Camp.-Gr.-Family	220	20	3
5.	Turkey Bayou Camp.-Overflow	220	50	3
II. <u>Swimming</u>				
			<u>P.A.O.T.</u>	<u>Development Level</u>
6.	Johnson Creek	110	600	4
7.	Buttermilk Hill Beach	110	960	4
8.	Cedar Lake Beach	90	100	4
III. <u>Picnicking</u>				
			<u>P.A.O.T.</u>	<u>Development Level</u>
9.	Johnson Creek	220	150	3
10.	Buttermilk Hill Picnic Area	365	45	4
11.	Bridgeview	365	45	3
12.	Turkey Bayou	220	85	3
13.	Gorham	365	45	
14.	Pomona Natural Bridge	365	25	3
IV. <u>Visitor Information Stops (VIS)</u>				
		<u>Season of Use</u>	<u>P.A.O.T.</u>	<u>Development Level</u>
16.	Gorham	365	12	4
17.	Pomona	365	10	4
V. <u>Boating</u>				
		<u>Season of Use</u>		<u>Development Level</u>
18.	Big Muddy River	365		2
19.	Johnson Creek	365		2
20.	Turkey Bayou	365		2

IV. <u>Observation Sites</u>	<u>Season of Use</u>	<u>P.A.O.T.</u>	<u>Development Level</u>
21. Riverview	365		2

B. Dispersed Areas (ROC's Semi-Primitive Non-Roaded and Semi-Primitive Roaded)

VI. <u>Undeveloped (Dispersed) Recreation Activities (SPM and RN Classes)</u>	<u>Season of Use</u>	<u>Acres</u>	<u>Development Level</u>
22. General Undev. Areas (Jackson Co.)	365	34,801	2
23. General Undev. Areas (Union Co.)	365	41,237	2
24. General Undev. Areas (Johnson Co.)	365	18,057	2
25. Trails-Recreation (Union Co.)	365		2
a. Pine Hills Recreation Area			
26. Trails-Recreation (Jackson Co.)	365		2
a. Kinkaid Lake Trail			
b. Cedar Lake Trail			
27. Reservoirs	365		2
a. Kinkaid Lake		1,800	
b. Cedar lake		1,000	
c. Oakwood Bottoms Greentree Area		3,064	
28. Rivers and Streams (Jackson Co.)	365		2
a. Big Muddy Canoe Trail			

Activity Locator Guide

Correlation of ROS to the class of activity to operational^{5, 6} endeavor now can be displayed in the following matrix, for the MRD. Columns (1) thru (3) describe the activity, the RIM reference and the activity occurrence. Columns (4) and (5) provide a reference guide for the Murphysboro Ranger District O&M plan.

(1) MRD Recreation Activity	(2) ROS Activity Class	(3) RIM Activity ⁷ Code	(4) MRD O&M Job Standards Page No. Location	(5) MRD Loc. Guide Activity No.
	SPM RN R			
Viewing.....x	x	x.....15.0.....	60, 64.....	22-28
Hiking.....x	x	x.....9.0.....	48, 70-72.....	25, 26
Horseback.....x	x	.....19.0.....	70-72.....	25, 26
Canoeing.....x	x	x.....4.1.....	42.....	18, 19, 20, 21
Sailing.....x	x	x.....4.1.....	42.....	18-20
Other Non-Motor...x		16.0.....	42.....	
Watercraft				
Swimming.....		x 1.1.....	38-42.....	6, 7, 8
Fishing.....x	x	x.....4.0.....	42.....	27, 28
Photography.....x	x	x.....20.0.....	67-76.....	22-28
<u>Camping</u>				
Primitive.....		.....5.0.....	48, 60.....	
Tent.....x		.....7.0.....	54-55.....	22-26
Trailer or RV...x	x	x.....10.0.....	45-64.....	1-5
	x	x.....13.0.....	45-64.....	1-5
Hunting.....x	x	x.....9.1.....	52-55.....	22-26
Nature Study.....x	x	x.....20.0.....	52-55.....	1-5, 9-17
Unguided Walking..x	x	x.....15.0.....	55, 73.....	25 26
Motor Driving.....x	x	x.....9.0.....	51, 52.....	22-27
ORV Touring.....x	x	.....9.6.....	53-55.....	22-26
			70-78	
Power Boats.....x	x	.....4.0.....	43, 44.....	18-20
Picnicking.....x	x	.....5.0.....	41, 46-54.....	9-15
		2.0		
Gathering Forest				
Products.....x	x	x.....9.0.....	51-54.....	22-24
		8.0		
Water Skiing &				
Water Sports.....	x	x.....4.0.....	42, 43.....	18-20
Viewing.....x	x	x.....9.0.....	51-54.....	All areas
Resorts & Commercial				
Public Service.	x	x.....		....Not available
Resort Lodging....	x	x.....		....Not available
Attending Talks &				
Shows.....		x.....20.0.....	64.....	1, 2
Competition Games.		x.....11.0.....	56.....	1, 2
Bicycling.....	x	x.....9.0.....	55, 73.....	25-26
Team Sports.....		x.....11.0.....	57.....	1, 2

The two indexes just reviewed provide the framework for an operating plan. Procedural guides depicting the needed maintenance by category and by location are written for the MRD. This guide furnishes the field going personnel specific instructions. Further instruction and maintenance guides have been done in an earlier study by Cook (80) and incorporated into a maintenance guide developed by the USFS San Dimas Experiment Station. The arrangement and content of the guide follows the standard format prescribed by the U. S. Forest Service, Region 9. Directions for O&M plan assembly can be found in FSM 233.1 Supplement No. 45.

Using the ROS system as a guide to developed maintenance and operation plans will cause some change to occur in the way we carry out our maintenance job on the ground. For example, the location of where maintenance is performed will be decided by the intensity of use and the activity taking place. The type of maintenance will vary according to use intensity. Areas of low use that were regularly cleaned, painted, and repaired regardless of number of visitors will receive an occasional maintenance visit. Facilities that receive minimal use due to low activity levels, or no use at all due to a change in where the activity occurs, will be removed.

The time we spend performing maintenance will change depending on amount of use and type of activity. Similarly, where all season activities are now occurring, such as four wheel driving and winter camping, our maintenance work that was seasonal will become a year-round job. We will find different ways of getting the heavy maintenance, usually

performed during slack season, done concurrently with use.

A operation and maintenance plan developed for the study area follows. The plan is divided into general directions and a specific guide to the cycle of maintenance tied to activity occurrence.

OPERATIONS AND MAINTENANCE

I. PROCEDURES GUIDE⁷

A. General Personnel Instructions

Those persons working in Recreation Opportunity Class II-IV areas will be polite and courteous to all visitors and campers. All persons making collections and issuing violation notices will wear as a minimum, the field uniform including a nameplate and badge.

Older Americans will work primarily during the recreation season in ROC III area maintenance concentrating on mowing and cleanup of recreational sites.

The YCC recreation crews will work on planned recreation from June to August. Crew leaders and enrollees will be instructed to conduct themselves in such a manner as to bring credit to themselves and the Forest Service.

Four YACC enrollees will assist in recreation maintenance and work on planned projects scheduled throughout the year. Again, good conduct is required.

B. Training

All employees issuing violation notices or collecting fees will be trained and/or certified in accordance with regional standards.

C. Safety

It is recommended that at least one person in each government vehicle be qualified in First Aid, understand proper emergency procedures and be able to recognize existing or potential hazards.

All personnel operating machinery or hazardous tools are required to wear safety equipment.

Hazard Identification and/or Removal:

We will remove all danger trees, dead limbs, and widow-makers from recreation areas before seasonal opening. Reference Annual Inspection of Developed Recreation Sites R9 Supp.-#25, FSM 2331.3 utilizing form R9-2300-4.

When mowing grass, personnel will stay as far away from campers and visitors as possible. Reduce speed of mowing when around camp sites and vehicles.

All other obvious hazards will be removed as soon as possible. If this is not possible, then appropriate signing or barricading will be necessary for protection of the visitor.

Job Hazard Analysis, Form 6100-21, for mowing; cleaning with disinfectant, detergent, painting, and paint remover; chopping, cutting, striking tools; wrenches, electric saws; and chain-saws are attached in the appendix.

General Guidelines when using these Tools:

1. Select the right tools for the job.
2. Maintain tools in good condition.
3. Use the proper tools correctly.
4. Keep tools in a safe place both when on the job and in storage.

D. Control of Use

1. Daily Operating Schedule

Day Use Areas

- 1) Swimming beaches will be open from sunrise until one hour after sunset.
- 2) Little Grand Canyon
- 3) Pomona Natural Bridge Closed
- 4) Johnson Creek Picnic Grounds 10 p.m. - 6 a.m.

2. Seasonal Closures

Closed

Campgrounds - Johnson Creek - Family Campground 10/31-4/1
 Turkey Bayou Campground 12/31-4/15

3. Reduced Services

Turkey Bayou Campground and Johnson Creek Group and Hike-In Campground operate under reduced services from 11-1 to 4-15.

4. Special Closures

The Little Grand Canyon/Horseshoe Bluff area is closed to snake collecting without a permit. All other developed facilities not listed above are open year around.

As of July 18, 1977 an off-road-vehicle closure order on the Shawnee Forest went into effect. This order has been authorized by 36 CFR 261.50.

5. Control of Overuse

Each single unit campground site will allow no more than two vehicles and eight person occupancy.
 -No vehicle will be allowed to park on the roads.

6. Conditions of Occupancy & Use

Occupancy of campsites will be limited to
 Fourteen days during the normal use season--
 Poster R9-2300-14 (4/77)

7. Signs

Informational signs, regulatory and safety signs and posters will be used as necessary to enforce regulations, direct users, and protect the resource. Poster R9-2300-14 will be displayed on all pay stations and bulletin boards in developed facilities, as well as a small map delineating the boundary of that facility. Bulletin boards will be displayed in a neat manner. Weather torn posters will be replaced and word signs will be stained, relettered or replaced as needed.

E. Law Enforcement

1. Cooperation with local authorities - A working relationship with the Jackson County Sheriff's Department is practiced although there is no Cooperative Law Enforcement Agreement with Jackson County. There are Cooperative Law Enforcement Agreements with:

- 1) Union County - Union County Sheriff - Larry Tripp
Jonesboro, IL (618) 833-5812
- 2) Johnson County - Johnson County Sheriff - Elry Faulkner
Vienna, IL (618) 658-8264
- 3) Fish and Wildlife Law Enforcement
Jackson Co. 1. Jim Seniwick-State Conservation Officer
457-7073
2. John Keeler-Federal Fish and Wildlife
Special Agent-Office: 457-3600

-Copies of agreements for the operating plan and patrol schedule with Union County Sheriff are kept at the Jonesboro Ranger District and Harrisburg Offices.

-Copies of agreements for the operating plan and patrol schedule with Johnson County Sheriff are kept at the Vienna Ranger District and Harrisburg Offices.

-Boating Regulations are in accordance to State of Illinois Law.
On Lake Kinkaid-Law enforced by:

- 1) Department of Conservation
- 2) Kinkaid Reeds Creek Conservancy District

-Cedar Lake-Laws enforced by:

- 1) Department of Conservation
- 2) City of Carbondale

2. Forest Service

Law Enforcement Responsibilities

Law Enforcement work by District Personnel will emphasize the "Good Host" policy but those who knowingly violate the law will be dealt with to the fullest extent.

Those who have completed the 40 hour Law Enforcement Training are:

Principal Law Enforcement Officer
 3/15-5/17 - Sun. - Thurs.
 5/17-9/12 - Wed. - Sun.
 9/12-11/5 - Sun. - Thurs.
 Normal work week and also assigned occasional weekend duty.

These Forest Officers are responsible for the full range of Law Enforcement Duties.

Forest Service personnel without authority to write violation notices will support authorized officers on special projects and will report violations as they encounter them during their normal work program.

F. Fee System

1. Johnson Creek Hike-In - \$3.00 Per unit per day
- Johnson Creek Family - \$5.00 Per unit per day
- Johnson Creek Group - \$5.00 Per family unit per day
2. Turkey Bayou - \$3.00 Per unit per day
3. Seasonal Rate

For Johnson Creek Hike-In and Group Camping - No fees will be charged from November 1 - April 15 due to reduced service management.

4. Bulletin boards at Self Service Fee Stations shall contain only information pertinent to the payment of fees and camp directions.

G. Visitor Information Services

1. Operating Schedule - Seasonal
 - a) Annual - 1. Maintain Pomona and Gorham VIS sites throughout the year.
 2. Supply Leisure Exploration Service at SIU with Information/Maps and Prochures about the Shawnee Forest.
 - b) Spring - 1. One day Interpretive Program for Carbondale and Murphysboro 6th Grade Students.
 2. Present 1-5 Informative programs about the Shawnee Forest to the local civic groups.
 - c) Summer - 1. Give 1-3 Informative programs about the Shawnee Forest to local civic groups.
 2. Participate in the annual Murphysboro Apple Festival Parade.
 3. Participated in the DeSoto Parade.
 4. Participated in S.I.U. Co-Rec. All-Nighter.

- d) Autumn - 1. Give 1-5 Informative programs about the Shawnee Forest to local civic groups.
- 2. Present 15-25 school Fire Prevention Programs during Fire Prevention Week.
- 3. Participate in the DuQuoin Folk Festival (3 Day Festivity).
- 4. Participate in the Carbondale Shriner's Parade (Smokey and Woodsy).
- 5. Participate in S.I.U. Activity Day.
- e) Winter - 1. Present 1-5 Informative Programs about the Shawnee Forest to local civic groups.

2. VIS Maps and Brochures

A special tabloid of Johnson Creek Recreation Area and Dedication to be prepared by the S.O. Recreation Staff (Ref. FY 81 I & I Plan).

Brochures available at Murphysboro Office:

- 1) Shawnee National Forest Recreation Maps - 50¢
- 2) Mini-Maps - Free
- 3) Sportsman's Maps - Free
- 4) O.R.V. road closure maps available and O.R.V. Policy Handout at the Murphysboro Ranger District Office.

3. Trail Maps:

- 1) Cedar Lake Trail Map
- 2) Kinkaid Lake Trail Map

4. Brochures:

- 1) "The Shawnee is Camping"
- 2) Little Grand Canyon
- 3) Oakwood Bottoms Greentree Reservoir
- 4) Various brochures on camping and fire use while in the Shawnee Forest.

5. Collection of Use Data

Camping ticket fee stubs will be picked up daily as referred to Compliance rules and instructions in FSH 6509.14 Collection Officer's Handbook.

More intensive methods of measuring use will be implemented when sufficient funds become available.

Traffic counters, the Kodak Analysis Camera and Visual spot checks are methods which will be used when money permits.

Reviews

An Annual Recreation Site Safety and Maintenance Needs Check Form R9230-4 will be completed for each developed site by March 15 of each year.

Periodic inspections will be made during the Recreation season to insure high quality Maintenance and Safety standards.

II. OPERATION

A. Cleaning and Policing

Cleaning and policing will be done on a regular basis at each developed site causing an overall appearance of being clean and sanitary. Standards for cleaning and policing recreation sites are found on page jj and jjj of the Forest Publication "Cleaning Recreation Sites" dated July 1980, and on the following outline.

1. Standards. Toilets free of insects, litter, cobwebs, and dust on ledges, dividers and fixtures. No odors either chemical or sewage; no graffiti on walls or fixtures; no moisture on floors; tissue always available; seats clean and serviceable; windows, screens, doors and vents in working order. Explanation and pictorial reference found on pp's 11, 19, 21, 22, 23, 27, 28 and 31 of "Cleaning Recreation Sites" - Class A-Waste Facilities.

Tables - Free of food particles and grease; surfaces clean and sanitary; no patching, splicing or irregular features. Cleaning specifications found on pp. 41-44, "Cleaning Tables" - Class B - Other Facilities.

Fire Rings - Free of food particles and baked-on grease; Fireplace located in a safe area for visitor use at all times; ashes and partially burned wood confined to fire-place. Pictorial explanation located on pp. 45-47, "Cleaning Fire Rings."

Hydrants - Free of food, waste, and debris. Faucet clean at all times. Cleaning standards found on pp. 51-52, "Cleaning Water Hydrants."

Garbage Cans - Inside of can clean of debris as well as outside and around stand; a tight fitting lid and no damaged cans such as dents, holes, or writing. Explanation found on pp. 33-37, "Cleaning Garbage Cans."

Signs - Neat, well maintained, uniform and readable.

2. Litter: Should not appear obvious. Traces of cigarette butts may be noticeable but large concentrations of disposable products such as paper plates should not be visible. Family units should be free of accumulation of small items. Large noticeable litter must be removed in and around family units as not to cause a considerable eye sore.

3. **Being Neat in Appearance:** Roofs of toilets and shelters free of limbs, needles and leaves; exterior walls clean and in good repair; garbage cans and tables in proper location. Rocks and masonry clean of vandal's paint.
4. **Being well kept by Minor Maintenance:** Maintenance work should be limited to minor projects needed to keep facilities serviceable. No sacrifice of the cleaning and policing job should be done to accomplish maintenance work.

B. Emergency Readiness

1. All search and rescue missions are coordinated through local Law Enforcement Agencies.
2. Post emergency information at Recreation VIS bulletin boards.
3. Forest Fire Control Plan information can be found in the Murphysboro Fire Prevention Plan at the Ranger Station.
4. **Accident Reporting:**
Accidents shall be reported to the Forest Supervisor immediately. Telephone reports should be followed by Form AD-278, Supervisor's Report of Accident, within five days.
The following type of accidents must be included.
 - a. Accidents which cause work injury which results in death, permanent total disability, permanent partial disability or temporary total disability.
 - b. Work injury which requires treatment by a medical doctor.
 - c. Motor vehicle accidents which results in death or injury to any person or damages government property and private property in any amount regardless of who is at fault.

Further specific information can be found in FSM 6179.16 Shawnee Supplement, #1, 9/67.

- C. **Site Protection** - Each site will be protected as necessary to **preserve its usefulness for recreation purposes.** The following measures can be taken as needed:
 1. Distribution of and rotating use.
 2. Providing traffic control.
 3. Maintain firelines and fire breaks.
 4. Installing erosion control structures, protecting and/or planting vegetation for erosion control purposes.
 5. Treating timber stands.
 6. Law Enforcement
All improvements will be maintained to the standard to which originally constructed or subsequently improved.

III. MAINTENANCE, SPECIFIC MAINTENANCE POLICY AND SCHEDULES FOLLOW:

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2, ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

MASTER JOBS	SUB-JOBS	DESCRIPTION	LEVEL OF SERVICE		TOOLS & MATERIALS (For all jobs)
			FULL	REDUCED	
1 Beach	A. Remove all foreign debris on beach and adjacent areas (glass, paper, pull tabs, twigs, etc.)	Place material in trash receptacle.	A	A	power beach cleaner (if available) rake, plastic bags, boat, oars, wrenches, life jackets litter picker garden sprayer Amitrole gloves lawn mower
	B. Install necessary swimming facilities (signs, buoys, depth markers, life rings, rescue equipment, etc.) as required by Swimming Site Administration Handbook.	Two persons needed when working around water. Proper design and installation of facilities are located in Swimming Site Administration Handbook.	A	A	
	C. Debris Pickup	Pickup all glass, bottle caps.	D	2W	
	D. Raking	Rake beach areas to turn up glass, flip top lids, bottle caps, etc.	W	M	
	E. Law Enforcement	Enforce all beach rules and regulations.	D	W	
	F. Control weed/grass encroachment	Cut back and/or grub out vegetation encroachment into beach areas.	M	A	

Code:

A = Annually
D = Daily
W = Weekly
2W = Twice weekly

BW = Bi-weekly
(every other weekday)
M = Monthly
BA = Bi-annually

SM = Semi-annually
AN = As needed

1.0 BATHING AND SWIMMING

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> <u>(For all jobs)</u>
			<u>Full</u>	<u>REDUCED</u>	
1. 1 Beach (cont.)	G. Control poisonous plants	Spray subject areas with herbicide, or remove manually.	As needed	As needed	
	H. Mowing	Mow adjacent grassed areas used for spectator seating.	BW	M	
	I. Check buoys, depth markers, life rings, rescue equipment, etc.	Buoys and depth markers to be in upright position and not waterlogged. Life rings and rescue equipment to be in serviceable condition. Replace as needed.	D	D	
	J. Remove all facilities at the end of the swimming season.	Store facilities in a dry area for winter. Post "Beach Closed" signs.	A	A	

SAFETY AND SANITATION: Follow label directions for use of herbicide and follow guidelines in Health and Safety Code book for recommended safety equipment.

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> (For all jobs)
			<u>Full</u>	<u>Reduced</u>	
1.4 Life Guard Stand	A. Manning	Man stations with lifeguard personnel	Weekends & Holidays	See note 1)	hand tools, paint brushes, stain
	B. Install and take down station	Self-explanatory.	A	A	
	C. Maintenance	Clean up and repaint/restain stand and seat.	A	A	

SAFETY AND SANITATION: Decision for manning should be based upon direction indicated in FSM 2334.2

Note 1) - No manning, post sign
"No life guard on duty"
during non-manning
periods.

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAIN PURPOSE</u>	<u>SUB-PURPOSE</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MAINTENANCE</u> <u>(For all jobs)</u>
			<u>Full</u>	<u>Reduced</u>	
.5 Swim Buoys	A. Conduct Maintenance	Clean and repaint buoys and replace damaged floats.	A	BA	paint, brushes stencils, boat wet suite
	B. Install and Remove Buoys	Follow guidelines in District O & M Plan.	A	A	replacement floats
	C. Inspection	Check for breaks in line or damaged/destroyed items.	D	2W	

REPAIR AND MAINTENANCE:

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAIN LINE</u>	<u>SUB-TITLE</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> (For all jobs)
			<u>Full</u>	<u>Reduced</u>	
Picnic Shelter	A. Remove all litter and foreign debris which has accumulated over the winter.	Place litter in trash receptacle.	A	A	rake broom plastic bags wrenches brushes
	B. Check to see that picnic tables, grills, etc., are clean and in a serviceable condition.	Paint and stain facilities as needed; repair or replace unserviceable equipment.	A	BA	aluminum paint stain disinfectant deodorant detergent sponge
	C. Sweep floor and pick-up litter.	Place litter in trash receptacle. D		2W	scrub brush double buck squeegee
	D. Clean tables and grills.	See appropriate Job Standard for details on how to perform task.	D	AN	rags mop
	E. Hose or mop floor of shelter	Job should be done in connection D with cleaning other facilities. Post "Wet Floor" sign.		AN	

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1962

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> (For all jobs)
			<u>Full</u>	<u>Reduced</u>	
2 Building (Bathhouse)	A. Remove all litter and foreign debris which has accumulated over the winter.	Place litter in trash receptacle.	A	A	broom plastic bags paint stain brushes
	B. Paint or stain facilities as needed.	Work must be done in a quality manner.	A	A	mop scrub bucket
	C. Hose or mop floor.	Post "Wet Floor" sign when completed.	D	3W	
	D. Sweep floor and pick-up litter.	Hose or mop floor if needed.	D	3W	

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

MAJOR JOBS	SUB-JOBS	DESCRIPTION	LEVEL OF SERVICE		TOOLS & MATERIALS (For all jobs)
			Full	Reduced	
boat launching and service.	A. Pick up all litter around launching area.	Place material in plastic bag or in litter receptacle as appropriate.	W	AN	plastic bags, gloves
	B. Inspect traffic control devices.	Check for rotten barrier posts, barrier posts needing staining, leveling, replacement, etc.	A	AN	
		Stain, level, replace barrier posts or parking stops. Stain posts from peak to ground level.	A	A	stain, brushes, level, shovel, post- hole diggers, gloves, hammer, nails, piece of wood for dead man, etc.
	C. Remove sand, muck, or other debris from ramp or launching area.	Use a shovel, high pressure hose, etc., to clean.	A	BA	shovel or high pressure hose
	Rake up debris that cannot be picked up.	Check for old burned tires left in fire rings. Clean up debris and throw old and dead fish and wire from tires in garbage bin.	W	M	
	D. Repair holes in ramp or gravel launching area.	Repair with gravel if it can be done with minimal amount of time and effort. If a large job, get Engr. assistance or replace concrete planks.	AN	AN	shovel, gravel, concrete plank

4.0 BOAT LAUNCHING AND SERVICE

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOB</u>	<u>SUB-JOB</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> <u>(For all jobs)</u>
			<u>Full</u>	<u>Relaxed</u>	
Boat launching (cont.)	E. Mow Grass	Cut grass adjacent to facility (see vegetative management plan)	BN	AN-M	lawn mower or grass whip, gloves, required PPE.

SAFETY AND SANITATION: Use work gloves. Be careful when handling broken glass or tin cans. Use a shovel.

USE OF TOOLS, SUPPLIES, ETC: Use eye protection when scrubbing tables or cleaning dishes from fire rings.
When using a wheelbarrow, do not attempt to lift more than you can handle safely or comfortably.

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

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<u>JOB TITLE</u>	<u>SUB-JOB</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> <u>(For all jobs)</u>
			<u>Full</u>	<u>Reduced</u>	
Fire Rings	A. Inspection	Inspect for damage and maintenance needs.	AN	A	
	B. Maintenance	Level fire ring.	SW	A	shovel, pry bar, level
		Free up grate to swing freely.	SW	A	pry bar, shovel
		Maintain earth (gravel) level to top lip of fire ring.	M	A	shovel, rake
	C. Cleanup	Remove ashes and debris to maintain a minimum distance of 8" - 12" from bottom of grate.	AN	A	shovel, wheel barrow, plastic bag, garden rake
		Scrub grate and lip of fire ring. Use a stiff brush with soap and water to wash grate. A wire brush may be necessary to remove grease and burnt material.	AN-M	None	soap, water, pail, stiff brush, wire brush, sponge

HEALTH AND SANITATION:

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

MAJOR JOBS	SUB-JOB	DESCRIPTION	LEVEL OF SERVICE		TOOLS & MATERIALS (For all jobs)
			Full	Reduced	
Pedestal Charcoal Grills	A. Inspection	Inspect for damage and maintenance needs.	AN	A	
	B. Maintenance	Tighten bolts (or replace), check that grate opens properly.	AN	M	small wrenches, screwdriver
	C. Cleanup	Empty ashes from grill and cleanup any from around base.	AN	A	shovel, wheel barrow
		Scrub grates. Use a stiff brush with soap and water to wash grate. A wire brush may be necessary to remove grease and burnt material.	AN	none	soap, water, pail, stiff brush, wire brush, sponge
	D. Paint pedestal grills	Use a wire brush to remove ashes and rust on tops and sides. Remove debris. (Note: On pedestal grills the grill may be removed by using a ball peen hammer and drift pin to knock out the pin. Be sure to tap lightly in order to keep the base from breaking).		BA	wire brush, gloves, shovel, heat resistant aluminum paint (must wear rubber gloves, rubber apron, and goggles when using this paint), paint brush

SAFETY AND SANITATION:

SHAWNEE NATIONAL FOREST FEBRUARY 1982

MAJOR JOBS	SUB-JOBS	DESCRIPTION	LEVEL OF WORK		TOOLS & MATERIALS (For all jobs)
			Full	Reduced	
6.1 Cleaning Garbage Cans	A. Remove plastic liner & contents	Set liner to side with top folded so contents will not spill.	3W	W	scrub brush (long handle) disinfectant deodorant detergent (1D solid)
	B. Scrub cans	Scrub inside and out to remove caked and dried spilled garbage. Check underside for grease and garbage.	AN	none	double bucket rags plastic liners heavy work gloves insecticide (spray)
	C. Pick up all litter and garbage in immediate area of can, rake up fine litter.	Place material in liner. Tie off liners so contents will not spill.	3W	W	
	D. Spray with insecticide	Spray interior completely and underside	AN-W	AN-BW	
	E. Install new liner	Liner top should not extend outside the can more than 3" below the lid. Either cut or fold under to fit.	3W	W	
	F. Haul bags to garbage bin	Pick up litter around outside of bin.	3W	W	
	G. Steam clean (if cans are not scrubbed-see B.)		A	none	

SAFETY AND SANITATION: Heft plastic liners and check before lifting. Get help and "double bag" heavy or torn liners before handling. Watch out for plastic bags contain ing toilet wastes - handle carefully. Use heavy work gloves.

USE OF TOOLS, SUPPLIES, ETC: Tools used for cleaning garbage cans are contaminated and may not be used for cleaning other types of facilities (other than toilets).

6.0 GARBAGE AND TRASH

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> <u>(For all jobs)</u>
			<u>Full</u>	<u>Reduced</u>	
.6 Container Pal (bin)	A. Clean	Pick up all debris around exterior of garbage bin. Rake remaining material up and deposit in bin.	W	BW	rake shovel
	B. Repair	Check and level-off pad so that bin sits flat and level.	AN-BW	AN-M	

SAFETY AND SANITATION:

LIST OF TOOLS, SUPPLIES, ETC:

7.0 MISCELLANEOUS

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> (For all jobs)
			<u>Full</u>	<u>Reduced</u>	
7.0 PARKS	A. Inspection	Initially check on general condition of facility, breaks, carvings, splinters, etc.	A	A	belt sander, plane, wood, hand tools, stain/paint
		Periodically, check on and correct health and safety items.	AN	AV	
	B. Conduct maintenance	Fill cracks, sand down surface, and re-stain/paint.	A	3A	
	C. Clean	Wash off food and other foreign material and police adjacent area.	W	A	

SAFETY AND SANITATION: Watch for splinters, protruding nails/screws, and pick-up and remove from area any steel shavings, etc.

7.0 MISCELLANEOUS

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

MAJOR JOBS	SUB-JOBS	DESCRIPTION	LEVEL OF SERVICE		TOOLS & MATERIALS (For all jobs)
			Full	Reduced	
7.6 Fee Collection Stations (unmanned)	A. Inspection	Initially check on general condition of facility.	A	A	paint/stain, hand tools, lawn mower, stencil mtl.
		Periodically check on and correct items involving public health and safety.	AN	AN	see bomb, Amitrol, plastic gloves, garden sprayer, broom, plastic bags
	B. Conduct Maintenance	Repaint and restencil deposit and envelope boxes.	A	A	
		Restain and correct structural problems.	A	A	
		Mow and trim adjacent grassed area.	BN	M	
	C. Control Pests	Check for and remove bee nests and poison ivy from site.	AN-2W	AN-M	
	D. Signing	Install required signing.	A	A	
		Check on condition and replace damaged, destroyed, or removed signs.	AN-W	AN-M	
		Remove signs and staples at end of season.	A	A	

7.0 MISCELLANEOUS

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> <u>(For all jobs)</u>
			<u>Full</u>	<u>Reduced</u>	
De Collection stations (Continued)	E. Cleaning	Remove cob webs and sweep off dust and dirt.	A	A	
		Police adjacent area for food scraps and litter.	AN	AN	

SAFETY AND SANITATION: Pick up food scraps to keep insect problems to a minimum and check stations for protruding staples which may catch limb or clothing.

7.0 MISCELLANEOUS

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> <u>(For all jobs)</u>
			<u>Full</u>	<u>Reduced</u>	
7.2 Traffic Counter	A. Install	Hook up counter on site.	A	A	12/5 volt batteries hand tools log book
	B. Check readings	Make sure counter is functioning properly.	2W	W	
	C. Remove counter	Remove from site and clean up.	A	A	

SAFETY AND SANITATION: None

USE OF TOOLS: Replace batteries every other month to insure proper operation.

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> <u>(For all jobs)</u>
			<u>Full</u>	<u>Reduced</u>	
Parking facility	A. Wooden barrier post	Posts should be vertical and installed at a uniform height (20" from ground to peak).	A	BA	level, post hole diggers, shovel, pry bar, log rollers, tape measure
		Stain barrier posts from top to ground	BA	4 yr. interval	Olympic chocolate brown stain, paint brushes
	B. Metal gates	Scrape and paint with approved paint color	A	BA	traffic yellow paint, wire brushes, wrenches, signs
		Check for proper signing and level gate.	AN	AN-M	(road closure, traffic markers, object markers) level, drill bolts.
	C. Parking Lots	Contact C&M for routine service maintenance.	AN	AN	shovel, dozer, compaction gravel
		Signing - inspect and replace as needed. (Co-ordinate all traffic control signs with C&M)	A	A	wrenches, signs, staple gun, staples, bolts, drill, posts, backboards, etc.
		Pick up litter - use garbage bags (double if necessary). Place in garbage container.	AN-M	AN-M	garbage bags, pickers

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> (For all jobs)
			<u>Full</u>	<u>Reduced</u>	
Parking facility maintenance (cont.)	D. Blacktop or concrete	Contact C&M for repairs and engineering for resurfacing needs.	A	BA	
		Remove gravel from asphalt parking lots as this damages surface. (C&M)	A	A	
		Painting traffic control lines. (C&M)	A	AN	
		Inspect and replace concrete wheel stops. (C&M)	AN	AN	reinforcing rod, sledge hammer, safety glasses, wheel stops

SAFETY AND SANITATION: Wear gloves and work boots.USE OF TOOLS, SUPPLIES, ETC: When using wheel barrow, do not overload or carry more than is comfortable to move.

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MAINTENANCE</u> (For all jobs)
			<u>Full</u>	<u>Reduced</u>	
9.1 Road, access, unsurfaced	Check visibility on curves and quadrants	Use pruning saw and prune low hanging limbs and branches up to 9' high. Use chain saw to cut and clear bigger trees that block visibility. Remove cut and pruned brush from area back to a 50' radius from road edge.	SA	A	
9.2 Road, access, surfaced					

SAFETY AND SANITATION: Watch for traffic when posting warning devices on roads. Be sure and use safety protection when using pruning saw and power tools.

USE OF TOOLS, SUPPLIES, ETC: Keep hand tools and power tools in good repair and store in proper place when not in use. No one under 18 years of age is allowed to run power tools. Those over 18 years must be certified by qualified instructor before operating a chain saw.

10.0 SEWAGE AND WASTE DISPOSAL

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> (For all jobs)
			<u>Full</u>	<u>Reduced</u>	
10.2 Tank and Field	A. Inspection	Inspect for leaks in disposal lines.	M	M	flashlight
		Inspect tank for sediment level.	A	A	flashlight probe stick
		Inspect surface of leach field.	M	M	
	B. Maintenance	Flush out lines with pressure hose or use mechanical snake.	BA	BA	fire pumper w/ 1 1/2 hose
		Pump septic tanks with sediment level exceeds 16".	AN	-(Note 2) AS	by contract

SAFETY AND SANITATION:

NOTE 2) At full service pump every 3 years

At reduced service pump every 5 years

11.0 SPECIALIZED SPORTS FACILITIES

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> (For all jobs)
			<u>Full</u>	<u>Reduced</u>	
11.6 Playground	A. Remove all litter and foreign debris which has accumulated over the winter.	Place litter in trash receptacle.	A	A	rake, ladler plastic bags litter picker wrenches
	B. Install all playground equipment and other facilities which have been removed for the winter.	Replace broken or unserviceable equipment.	A	A	
	C. Level sand, wood chips, or similar material around playground equipment and other heavily used areas.	Remove any rocks or other large chunks of material.	A	A	
	D. Check for safety hazards and correct as needed.	Check for wood splinters, sharp metal edges, broken glass, defective equipment, etc.	D	W	
	E. Level sand, wood chips, or similar material around playground equipment and other heavily used areas.	Concrete bases around playground equipment should be covered.	W	A	

SAFETY AND SANITATION:

12.0 TABLES

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

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<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> (For all jobs)
			<u>Full</u>	<u>Reduced</u>	
Cleaning Tables	A. Apply 3D solution	Apply liberal amounts to top and benches with sponge.	AN-W	AN-M	disinfectant deodorant detergent (3D solution) sponge
		Let solution work about 2 minutes.	AN-W	AN-M	scrub brush double bucket squeegee
	B. Scrub	Use sponge or scrub brush as needed to remove soil or stain	AN-W	AN-M	rags
	C. Rinse	Use sufficient clear water to remove all soil.	AN-W	AN-M	
		Squeegee excess solution from top and benches.	AN-W	AN-M	
	D. Wipe clean	Use a clean rag to remove all excess solution from edges, ends and squeegee skips.	AN-W	AN-M	

SAFETY AND SANITATION: Watch for splinters, nails and loose planks. Correct deficiencies on the spot.

USE OF TOOLS, SUPPLIES, ETC: Tools used for this job are to be kept separated from those used to clean toilets or garbage can.

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

MAJOR JOBS	SUB-JOBS	DESCRIPTION	LEVEL OF SERVICE		TOOLS & MATERIALS (For all jobs)
			Full	Reduced	
Cleaning Toilets	A. Pick up all paper scraps and refuse from floor and on trail to toilet.	Place material in a litter receptacle or in vault, as needed.	D	Once W	broom (corn fiber) double bucket wet mop mop bucket & wringer sponge
	B. Sweep the floor clean.	Scrape gum, etc. from floor with a putty knife.	D	Once W	toilet bowl brush toilet bowl cleaner measuring cup
		Pick up material with dustpan. Do not sweep small litter, etc. out the door.	D	Once W	disinfectant dust pan dusting brush(es) toilet paper rubber gloves
	C. Dust with brush.	Include window sills, rafters, window louvers (inside & out), and other flat surfaces. Clear all cobwebs.	2W	BW	Bee Bop available disinfectant 3D Solution Pinesol
	D. Clean wash basins with disinfectant.	Wipe with a disinfectant soaked sponge.	D	2W	available deodorizer Air Kem Airohek
	E. Clean walls with disinfectant.	Wipe or scrub as needed using a disinfectant soaked sponge.	2W	BW	Zeb's "Mr. Block" Inca Gold
	F. Mop floor.	Use disinfectant solution and dry mop.	D	W	
	G. Clean toilet seat and stool.	Scrub the outside of the toilet stool and both sides of the seat and cover with disinfectant solution. Pay particular attention to the hinge.	D	AN	
		Use long-handled toilet brush or swab to scrub inside of toilet stool down to collar with toilet bowl cleaner.	2W	AN	

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SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> (For all jobs)
			<u>Full</u>	<u>Reduced</u>	
	G. (continued)	Polish and dry toilet stool seat and cover.	W	W	
	H. Control odor.	Spray deodorizer solution inside vault or pit walls and on waste mass.	W	W	
		Or use Zeb's "Mr. Block" by hanging block under the floor just in front of the toilet stool hole.	M	M	
		Hang a space deodorant block in an appropriate diffuser in the toilet compartment.	W	W	
	I. Control insects.	Tack one-half of a Shell "No-Pest" strip, after removing it from its cardboard diffuser, high on a rafter in the toilet compartment.	M	M	
	J. Toilet paper.	Check supply and replace as necessary.	D	2W	

SAFETY AND SANITATION: Watch for splinters, protruding nails, torn screen or hardware cloth, etc., while dusting. Correct hazards as you go along. The 3D solution in proper strength is not hazardous, but most toilet bowl cleaners are. Read the labels of all chemicals and follow instructions. Always install insecticide and deodorant blocks where children cannot reach them.

USE OF TOOLS, SUPPLIES, ETC: Tools used for cleaning toilets are contaminated and may not be used for cleaning other types of facilities (other than garbage cans).

15.0 VISITOR INFORMATION

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> <u>(For all jobs)</u>
			<u>Full</u>	<u>Reduced</u>	
Visitor information systems maintenance	A. Replace faded or vandalized posters.	Remove all remnants of old posters. Remove old staples. Square new poster to backboard making sure it is level. Staple poster along edges.	AN	AN	signs, bolts, hammer, staple gun, staples, wrenches
	B. Check routed signs for holes and damage. Check to make sure routed signs are bright and if new paint is needed.	Check for gunshot holes or damage. If damage is present and it affects appearance, remove and have it refinished. Painting of routed signs. Signs are brown with cream lettering. This is a Benjamin Moore paint.	W BA	A 3A	Olympic chocolate brown stain paint brushes, level, post hole diggers, shovel, taper, posts, backboards
	C. Check backboards and bulletin for staining and leveling	Check to see if backboards and post are firmly set and level. Stain any faded post or backboard with Olympic chocolate brown stain.	M AN	A AN	
	D. Mow Grass	Keep the grass and shrubbing in a clean, well-groomed condition.	2W	AN	lawn mower, timber

SAFETY AND SANITATION:

15.0 VISITOR INFORMATION

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS (For all jobs)</u>
			<u>Full</u>	<u>Reduced</u>	
Visitor information systems maintenance	A. Replace faded or vandalized posters.	Remove all remnants of old posters. Remove old staples. Square new poster to backboard making sure it is level. Staple poster along edges.	AN	AN	signs, bolts, hammer, staple gun, staples, wrenches
	B. Check routed signs for holes and damage. Check to make sure routed signs are bright and if new paint is needed.	Check for gunshot holes or damage. If damage is present and it affects appearance, remove and have it refinished. Painting of routed signs. Signs are brown with cream lettering. This is a Benjamin Moore paint.	W	A	Olympic chocolate brown stain paint brushes, level, post hole diggers, shovel, tamper, posts, backboards
	C. Check backboards and bulletin for staining and leveling	Check to see if backboards and post are firmly set and level. Stain any faded post or backboard with Olympic chocolate brown stain.	M	A	
			AN	AN	
	D. Mow Grass	Keep the grass and shrubbing in a clean, well-groomed condition.	2W	AN	lawn mower, timber

SAFETY AND SANITATION:

16.0 SITE PROTECTION STRUCTURES AND DEVICES

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OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

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<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> <u>(For all jobs)</u>
			<u>Full</u>	<u>Reduced</u>	
Maintenance of Site protection structures and devices	A. Maintenance of metal gates	See parking facility maintenance.			
	B. Locks	Replace locks if they will not open properly after being lubricated with graphite or WD-40.	AN	AN	graphite, WD-40
	C. Barrier posts signs	See parking facility maintenance. See visitor information, parking facility maintenance.			

SAFETY AND SANITATION:

17.0 WATER SYSTEM

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> <u>(For all jobs)</u>
			<u>Full</u>	<u>Reduced</u>	
7.3 Water System Pump (power)	A. Check Pressure Line	If pressure keeps dropping line may have leak in it. Turn faucets on, run water till pressure drops. Shut faucets off, see if pressure returns to normal. If pressure does not return, pump may be out of order; check electric power. If unable to locate leak notify engineers.	D	W	garbage sacks rake shovel wrenches antifreeze polyethylene
	B. Drain Water System Winterize	See attached form			
	C. Cleaning	Clean around outside water faucets. Pick up all debris, soap, etc.	W	W	
	D. Drainage From Water Faucets	Check to see if water is seeping away through drainage. If not draining, dig up stones and replace with new material.	W	M	
	E. Check For Leaks In Faucets	Replace if leaking.			

SAFETY AND SANITATION:LIST OF TOOLS, SUPPLIES, ETC.

17.0 WATER SYSTEM

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

MAJOR JOBS	SUB-JOBS	DESCRIPTION	LEVEL OF SERVICE		TOOLS & MATERIALS (For all jobs)
			Full	Reduced	
7.3 Water System Pump (power)	A. Check Pressure Line	If pressure keeps dropping line may have leak in it. Turn faucets on, run water till pressure drops. Shut faucets off, see if pressure returns to normal. If pressure does not return, pump may be out of order; check electric power. If unable to locate leak notify engineers.	D	W	garbage sacks rake shovel wrenches antifreeze polyethylene
	B. Drain Water System Winterize	See attached form			
	C. Cleaning	Clean around outside water faucets. Pick up all debris, soap, etc.	W	W	
	D. Drainage From Water Faucets	Check to see if water is seeping away through drainage. If not draining, dig up stones and replace with new material.	W	M	
	E. Check For Leaks In Faucets	Replace if leaking.			

SAFETY AND SANITATION:

USE OF TOOLS, SUPPLIES, ETC.

17.0 WATER SYSTEM

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

MAJOR JOBS	SUB-JOBS	DESCRIPTION	LEVEL OF SERVICE		TOOLS & MATERIALS (For all jobs)
			Full	Reduced	
17.4 Water System Hand Pump	A. Treating	In early spring, remove base and treat with chlorine tablets.	A	A	adjustable wrench pipe wrench
	B. Remove Rods	Remove rods, clean and treat with clorox or bleach, replace rods.	A	A	
	C. Change Leathers	Remove rods, uncouple rods holding straight so as not to break. Replace leathers on rods.	AN	AN	
	D. Sweep platform of all debris	Use broom and dustpan sweep contents into a garbage sack.	2W	W	broom dust pan garbage sacks
	E. Remove soap and other stains on drinking fountain	Clean drinking fountain of tooth paste, soap and other debris.	2W	W	pliers hammer wrench scrub brush
	F. Pump a few strokes with handle to see if pump is in operation acceptably	Remove stones from drinking fountain tube, tighten all nuts, loose bolts, and replace if necessary. Check pump pad for cracks.	AN	2W	pail water sample bottles
	G. Inspect all nuts, bolts, and moving parts				
	H. Water Samples	Take cap off bottle, hold in left hand, do not tuck underside of cap, pump water for about 5 minutes, fill bottle within one inch of top. Replace cap.		W	

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC IV AREAS)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> (For all jobs)
			<u>Full</u>	<u>Reduced</u>	
Interpretive Exhibit Interpretive Sign	A. Update material	Review specific program and restructure it to meet changing times, conditions and clientele.	A	A	Paint/stain hand tools VIS material
		Add additional material to improve presentation, increase the programs effectiveness, or update incorrect information.	A	AN	
	B. Maintain Facility	Initially, conduct facility condition survey.	A	A	
		Paint/stain all wood and bring facility up to Forest Service maintenance standards.	A	A	
		Conduct periodic inspections and correct health and safety problems.	AN	AN-M	

SAFETY AND SANITATION: During periodic inspections, check specifically for split boards, protruding nails, staple ends, etc.

TOOLS/EQUIPMENT: If a facility cannot be fully repaired after vandalism or conditions are below Forest Service standards and replacement is impossible, remove the facility from the area and replace when financing permits.

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC II - III)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

MAJOR JOBS	SUB-JOBS	DESCRIPTION	LEVEL OF SERVICE		TOOLS & MATERIALS (For all jobs)
			Full	Reduced	
Boat launching and service.	A. Pick up all litter around launching area.	Place material in plastic bag or in litter receptacle as appropriate.	W	AN	plastic bags, gloves
	B. Inspect traffic control devices.	Check for rotten barrier posts, barrier posts needing staining, leveling, replacement etc.	A	AN	
		Stain, level, replace barrier posts or parking stops. Stain posts from peak to ground level.	A	A	stain, brushes, level, shovel, post-hole diggers, gloves, hammer, nails, piece of wood for lead line, etc.
	C. Remove sand, muck, or other debris from ramp or launching area.	Use a shovel, high pressure hose, etc., to clean.	A	BA	shovel or high pressure hose
	Rake up debris that cannot be picked up.	Check for old burned tires left in fire rings. Clean up debris and throw old and dead fish and wire from tires in garbage bin.	W	M	
	D. Repair holes in ramp or gravel launching area.	Repair with gravel if it can be done with minimal amount of time and effort. If a large job, get Engr. assistance or replace concrete planks.	AN	AN	shovel, gravel, concrete plank

4.0 BOAT LAUNCHING AND SERVICE

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC II - III)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> <u>(For all jobs)</u>
			<u>Full</u>	<u>Reduced</u>	
Boat launching (cont.)	E. Mow Grass	Cut grass adjacent to facility (see vegetative management plan)	BW	AN-W	lawn mower or grass whip, gloves, required PPE.

SAFETY AND SANITATION: Use work gloves. Be careful when handling broken glass or tin cans. Use a shovel.

USE OF TOOLS, SUPPLIES, ETC: Use eye protection when scrubbing tables or cleaning ashes from fire rings.
When using a wheelbarrow, do not attempt to lift more than you can handle safely or comfortably.

5.0 COOKING AND WARMING

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OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC II - III)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> (For all jobs)
			<u>Full</u>	<u>Reduced</u>	
5.2 Fire Rings	A. Inspection	Inspect for damage and maintenance needs.	AN	A	
	B. Maintenance	Level fire ring.	SM	A	shovel, pry bar, level
		Free up grate to swing freely.	SM	A	pry bar, shovel
		Maintain earth (gravel) level to top lip of fire ring.	M	A	shovel, rake
	C. Cleanup	Remove ashes and debris to maintain a minimum distance of 9" - 12" from bottom of grate.	AN	A	shovel, wheel barrow, plastic bag, garden rake
		Scrub grate and lip of fire ring. Use a stiff brush with soap and water to wash grate. A wire brush may be necessary to remove grease and burnt material.	AN-M	None	soap, water, pail, stiff brush, wire brush, sponge

SAFETY AND SANITATION:

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC II - III)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

MAJOR JOBS	SUB-JOBS	DESCRIPTION	LEVEL OF SERVICE		TOOLS & MATERIALS (For all jobs)
			Full	Reduced	
6.1 Cleaning Garbage Cans	A. Remove plastic liner & contents	Set liner to side with top folded so contents will not spill.	3W	W	scrub brush (long handle) disinfectant deodorant
	B. Scrub cans	Scrub inside and out to remove caked and dried spilled garbage. Check underside for grease and garbage.	AW	none	detergent (3D solution) double bucket rags plastic liners heavy work gloves insecticide (spray)
	C. Pick up all litter and garbage in immediate area of can, rake up fine litter.	Place material in liner.	3W	W	
	D. Spray with insecticide	Spray interior completely and underside.	AW-W	AW-EW	
	E. Install new liner	Liner top should not extend outside the can more than 3" below the lid. Either cut or fold under to fit.	3W	W	
	F. Haul bags to garbage bin	Pick up litter around outside of bin.	3W	W	
	G. Steam clean (if cans are not scrubbed-see B.)		A	none	

SAFETY AND SANITATION: Heft plastic liners and check before lifting. Get help and "double bag" heavy or torn liners before handling. Watch out for plastic bags containing toilet wastes - handle carefully. Use heavy work gloves.

USE OF TOOLS, SUPPLIES, ETC: Tools used for cleaning garbage cans are contaminated and may not be used for cleaning other types of facilities (other than toilets).

7.0 MISCELLANEOUS

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC II - III)

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> <u>(For all jobs)</u>
			<u>Full</u>	<u>Reduced</u>	
7.9 Traffic Counter	A. Install	Hook up counter on site.	A	A	12/5 volt batteries hand tools log book
	B. Check readings	Make sure counter is functioning properly.	2W	W	
	C. Remove counter	Remove from site and clean up.	A	A	

SAFETY AND SANITATION: None

USE OF TOOLS: Replace batteries every other month to insure proper operation.

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC II - III)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

MAJOR JOBS	SUB-JOBS	DESCRIPTION	LEVEL OF SERVICE		TOOLS & MATERIALS (For all jobs)
			Full	Reduced	
Parking facility	A. Wooden barrier post	Posts should be vertical and installed at a uniform height (20" from ground to peak)	A	BA	level, post hole diggers, shovel, pry bar, log holders, tape measure
		Stain barrier posts from top to ground	BA	4 yr. interval	Olympic chocolate brown stain, paint brushes
	B. Metal gates	Scrape and paint with approved paint color	A	BA	traffic yellow paint, wire brushes, wrenches, signs (road closed, barricade markers, object markers) level, drill, bolts.
	C. Parking Lots	Contact C&M for routine service maintenance.	AN	AN	shovel, dozer, compaction gravel
		Signing - inspect and replace as needed. (Co-ordinate all traffic control signs with C&M)	A	A	wrenches, signs, staple gun, staples, bolts, drill, posts, backboards, etc.
		Pick up litter - use garbage bags (double if necessary). Place in garbage container.	AN-W	AN-W	garbage bags pickeroon

8.0 PARKING

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OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC II - III)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> <u>(For all jobs)</u>
			<u>Full</u>	<u>Reduced</u>	
Parking facility maintenance (cont.)	D. Blacktop or concrete	Contact C&M for repairs and engineering for resurfacing needs.	A	BA	
		Remove gravel from asphalt parking lots as this damages surface. (C&M)	A	A	
		Painting traffic control lines. (C&M)	A	AN	
		Inspect and replace concrete wheel stops. (C&M)	AN	AN	reinforcing rod, sledge hammer, safety glasses, wheel stops

SAFETY AND SANITATION: Wear gloves and work boots.

USE OF TOOLS, SUPPLIES, ETC: When using wheel barrow, do not overload or carry more than is comfortable to move.

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC II - III)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MAINTENANCE</u> <u>(For all jobs)</u>
			<u>Full</u>	<u>Reduced</u>	
9.1 Road, access, unsurfaced	Check visibility on curves and quadrants	Use pruning saw and prune low hanging limbs and branches up to 9' high. Use chain saw to cut and clear bigger trees that block visibility. Remove cut and pruned brush from area back to a 50' radius from road edge.	SA	A	
9.2 Road, access, surfaced					

SAFETY AND SANITATION: Watch for traffic when posting warning devices on roads. Be sure and use safety protection when using pruning saw and power tools.

USE OF TOOLS, SUPPLIES, ETC: Keep hand tools and power tools in good repair and store in proper place when not in use. No one under 18 years of age is allowed to use power tools. Those over 18 years must be certified by qualified instructor before operating a chain saw.

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC II - III)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

MAJOR JOBS	SUB-JOBS	DESCRIPTION	LEVEL OF SERVICE		TOOLS & MATERIALS (For all jobs)
			Full	Reduced	
Cleaning Toilets	A. Pick up all paper scraps and refuse from floor and on trail to toilet.	Place material in a litter receptacle or in vault, as needed.	D	Once W	broom (corn fiber) double bucket wet mop mop bucket & wringer sponge
	B. Sweep the floor clean.	Scrape gum, etc. from floor with a putty knife.	D	Once W	toilet bowl brush toilet bowl cleaner measuring cup
		Pick up material with dustpan. Do not sweep small litter, etc. out the door.	D	Once W	disinfectant dust pan dusting pan dusting brush(es)
	C. Dust with brush.	Include window sills, rafters, window louvers (inside & out), and other flat surfaces. Clear all cobwebs.	2W	BW	toilet paper rubber gloves Bee Bop available disinfectants 3D Solution
	D. Clean wash basins with disinfectants.	Wipe with a disinfectant soaked sponge.	D	2W	Pinesol available deodorizers
	E. Clean walls with disinfectant.	Wipe or scrub as needed using a disinfectant soaked sponge.	2W	BW	Air Kem Airchek Zeb's "Mr. Block" Inca Gold
	F. Mop floor.	Use disinfectant solution and dry mop.	D	W	
	G. Clean toilet seat and stool.	Scrub the outside of the toilet stool and both sides of the seat and cover with disinfectant solution. Pay particular attention to the hinge.	D	AN	
		Use long-handled toilet brush or swab to scrub inside of toilet stool down to collar with toilet bowl cleaner.	2W	AN	

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC II - III)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> (For all jobs)
			<u>Full</u>	<u>Reduced</u>	
	G. (continued)	Polish and dry toilet stool seat and cover.	W	W	
	H. Control odor.	Spray deodorizer solution inside vault or pit walls and on waste mass.	W	W	
		Or use Zeb's "Mr. Block" by hanging block under the floor just in front of the toilet stool hole.	M	M	
		Hang a space deodorant block in an appropriate diffuser in the toilet compartment.	W	W	
	I. Control insects.	Tack one-half of a Shell "No-Pest" strip, after removing it from its cardboard diffuser, high on a rafter in the toilet compartment.	M	M	
	J. Toilet paper.	Check supply and replace as necessary.	D	2W	

SAFETY AND SANITATION: Watch for splinters, protruding nails, torn screen or hardware cloth, etc, while dusting. Correct hazards as you go along. The 3D solution in proper strength is not hazardous, but most toilet bowl cleaners are. Read the labels of all chemicals and follow instructions. Always install insecticide and deodorant blocks where children cannot reach them.

USE OF TOOLS, SUPPLIES, ETC: Tools used for cleaning toilets are contaminated and may not be used for cleaning other types facilities (other than garbage cans).

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC II - III)

SHAWNEE NATIONAL FOREST FEBRUARY

MAJOR JOBS	SUB-JOBS	DESCRIPTION	LEVEL OF SERVICE		TOOLS & MATERIALS (For all jobs)
			Full	Reduced	
Visitor information systems maintenance	A. Replace faded or vandalized posters.	Remove all remnants of old posters. Remove old staples. Square new poster to backboard making sure it is level. Staple poster along edges.	AN	AN	signs, bolts, hammer, staple gun, staples, wrenches
	B. Check routed signs for holes and damage. Check to make sure routed signs are bright and if new paint is needed.	Check for gunshot holes or damage. If damage is present and it affects appearance, remove and have it refinished.	W	A	Olympic chocolate brown stain paint brushes, level, post hole diggers, shovel, tamper, posts, backboards
		Painting of routed signs. Signs are brown with cream lettering. This is a Benjamin Moore paint.	BA	3A	
	C. Check backboards and bulletin for staining and leveling	Check to see if backboards and post are firmly set and level.	M	A	
		Stain any faded post or backboard with Olympic chocolate brown stain.	AN	AN	
	D. Mow Grass	Keep the grass and shrubbing in a clean, well-groomed condition.	2W	AN	lawn mower, timber

SAFETY AND SANITATION:

OPERATION & MAINTENANCE JOB STANDARDS (RIM CONDITION CLASSES 1-2 ROC II - III)

SHAWNEE NATIONAL FOREST FEBRUARY 1982

<u>MAJOR JOBS</u>	<u>SUB-JOBS</u>	<u>DESCRIPTION</u>	<u>LEVEL OF SERVICE</u>		<u>TOOLS & MATERIALS</u> (For all jobs)
			<u>Full</u>	<u>Reduced</u>	
Interpretive Exhibit Interpretive Sign	A. Update material	Review specific program and restructure it to meet changing times, conditions and clientele.	A	A	Paint/stain hand tools VIS material
		Add additional material to improve presentation, increase the programs effectiveness, or update incorrect information.	A	AN	
	B. Maintain Facility	Initially, conduct facility condition survey.	A	A	
		Paint/stain all wood and bring facility up to Forest Service maintenance standards.	A	A	
		Conduct periodic inspections and correct health and safety problems.	AN	AN-M	

SAFETY AND SANITATION: During periodic inspections, check specifically for split boards, protruding nails, staple ends, etc

TOOLS/EQUIPMENT: If a facility cannot be fully repaired after vandalism or conditions are below Forest Service standards and replacement is impossible, remove the facility from the area and replace when financing permits.

Summary

Recreation use management has historically been described in terms of facilities. Utilizing the Recreation Opportunity Spectrum and its activity classifications, maintenance operations can be described for field going personnel in the form of a guide. This guide is related to the ROS classes of activity rather than facilities. A cross-walk between the ROS categories and the Recreation Opportunity classes was developed to show that there is a relationship between ROS and ROC.

In the study area, four classes of activities were found, by a map inspection and discussions with field personnel. The classes were semi-primitive non-motorized, semi-primitive motorized, roaded natural and rural.

A guide was written for each of these classes. When considering the ROS system, it was pointed out that there is an overlapping of activities that take place between the various classes. It is within these overlap areas that conflict situations between users often occur. The study demonstrates graphically these overlap areas.

It was also pointed out that as the activity increases on the ground, the duration and intensity of the recreation cycle increases to the point of carrying capacity. When activity use exceeds the land capability, resource depreciation exceeds recovery. At this point management steps in to put constraints on activity intensity.

1. Chilman and Kao, SIU p. 25-30.
2. Arthur Zdzieblowski, "Recreation Opportunity Spectrum" (unpublished paper, USDA Forest Service, Shawnee National Forest, Harrisburg, IL 1981).
3. Ibid., p. 1.
4. Buzz Durham and Gaylord Yost "Recreation Management Primer" (unpublished paper, USDA Forest Service R-9, Milwaukee 1981).
5. Zdzieblowski, ROS, p. .
6. Chilman and Kao, SIU, p. 28.
7. FSM RIM Handbook, Exhibit 4, page 192-15
8. FSM 2331.3 Operations from FSM 2300 Recreation Management R-9 Supplement 45, 1978.

CHAPTER V

CONCLUSIONS

Managing wild lands for public recreation in such a way as to meet the needs of the user by providing an array of activities, is a concern to resource managers. Since the early 1950's recreation administrators have defined the use and management in terms of facilities that can be placed on the ground. Currently, Eastern Forests are managed this way, utilizing a 3 season approach. The plans, for the most part, relate to spring, summer and fall use of facilities, in terms of dispersed and developed areas. Considering the Recreation Opportunity Spectrum as a new approach to describing activities occurring on wild lands, the operation and maintenance direction and guides do not correlate with the system. We briefly summarized the findings and the conclusions, reviewed possible implications and applications of the findings and considered the use of ROS maintenance guides at various field and administrative levels.

We conclude that the concept of recreation use has been established. The basic assumption was made by Wagar (66) that as long as we have forests and open spaces, people will use these areas for recreation activities. At a later time, Stankey and Clark (79) postulated the Recreation Opportunity Spectrum as a definitional approach to looking at classifying wild lands in terms of the activity taking place. They further summarize that if managers related their direction in terms of activities, use conflicts could be identified, as to where and in what settings they would occur, and thereby, manage conflict situations.

Chilman (81) and Zdziebowski (81) looked at applications of the ROS system to the Murphysboro Ranger District on the Shawnee National Forest, and defined the activities that were found there within the ROS classes. Durham and Yost (81) diagrammed out the classes of the ROS system and defined activities that will be found in the various ROS classes.

By summarizing these various studies, it was found that the link between use assumptions and on-the-ground activity management was missing. Needed was a way to describe how the activities could be managed on a day by day basis for the average field going person. A cross-walk was developed relating the ROS classes to a maintenance and operations guide in terms the ROC definitions.

Activity classification was assigned to each identified activity and instructions for managing that activity were written, limiting the study to one Ranger District on an Eastern National Forest.

As an aid to the manager, a field Operation and Maintenance guide was prepared, for further management consideration.

By utilizing the guide, a manager can provide his field supervisory personnel the direction needed to perform a year-round cycle of maintenance and operation. The manager, by knowing the various ROC, can be prepared to meet conflicting use problems and can map out ahead of time contingency plans to deal with the conflict situations. The field supervisor by dealing with the ROC activities can judge when,

where and at what time his cycle of maintenance should be carried out and can plan crew size and material needs on a yearly basis.

A concern to management has always been to find the least expensive way of performing a routine task yet keeping within predetermined standards. The cost of the various operations and maintenance tasks was reviewed and found to be well documented in the RIM data system. The Operation and Maintenance guides will be of use on the average Ranger District when the ROS system is fully realized, as they will relate field activity to planning direction, and help to coordinate knowledge level and terminology.

Although this study limited findings to one Ranger District, the ROC maintenance guides could be applied wherever the unit manager is operating under a defined ROS system. This could be on a regional or national basis. In each case, however, the unit would need to review the ROS activities and define those activities that are applicable to the particular area. As an example, downhill skiing was not discussed in this study as it is not an activity that occurs in the study area. Specific activities may need to be included in order to localize the guide to the land unit in question. When this is done the manager can relate his plan to the activities taking place on the ground.

Future consideration may want to address the cost analysis. These costs could be localized to a study area. Costs of operations and maintenance vary by units, areas and parts of the country. A localized cost guide could be prepared following the RIM outline, utilizing empirical, localized information.

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